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PASTEBOARD CARTON

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Fig. 1.

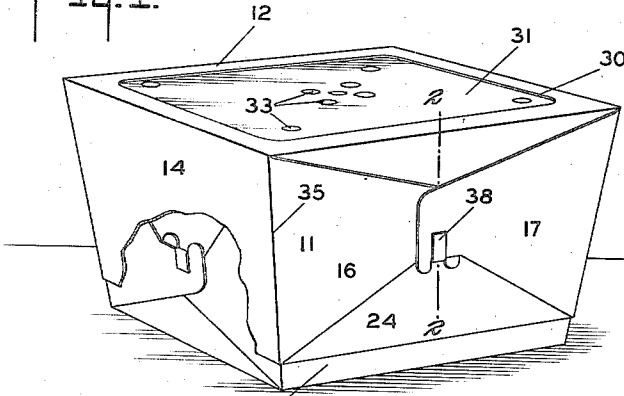


Fig. 2.

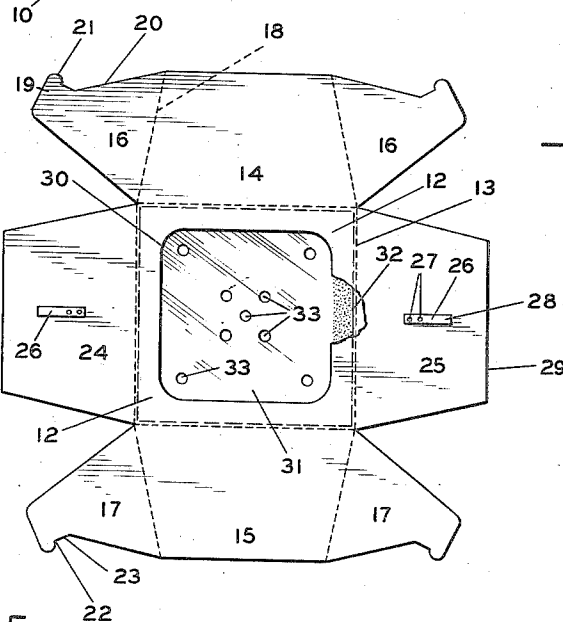
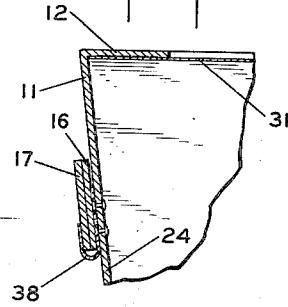


Fig. 3.

Fig. 5.

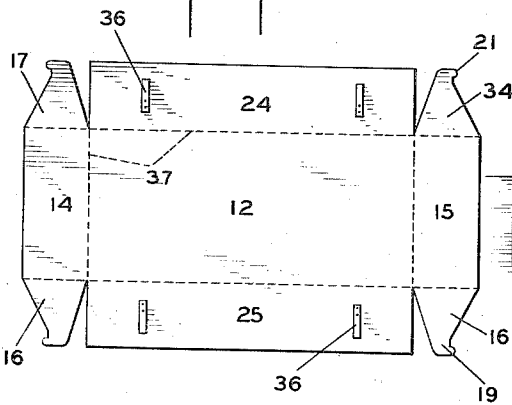
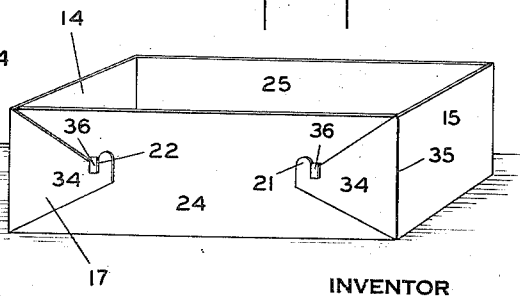


Fig. 4.



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PASTEBOARD CARTON

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9 Claims. (Cl. 229—35)

The invention relates in general to a paper package or carton of the type usually employed in packing berries, fruit, vegetables, candy and similar articles, which employs two hollow, box-like units, specifically a box and a cover therefor, and in which the articles are packed in the box and the top of the box closed by means of the cover which is secured in place by wrapping its sides about the sides of the box and temporarily interconnecting the ends of the cover sides to secure them in position engaging the contained box during shipping and for subsequent display.

The primary object of the invention is to provide an improved form of two-unit carton of the type above outlined and in which a box and its associated cover may each be made from preformed flat blank stock designed to be stored and shipped in a compact stacked position and in which one form of blank may be quickly folded and secured in position to form the box and another similar form of blank may be similarly folded and secured in position about the box to form a closure for the box and to coact therewith to form the complete carton.

Another object of the invention is to provide a simplified and easily fabricated box and/or box cover, not necessarily for conjoint use, in which the box may be used alone without any cover or with some other form of cover, and in which the cover herein featured may be utilized as a cover for any standard form of berry or other box.

Another object of the invention is to provide an improved form of two unit carton of the type above outlined and particularly to improve the combined cover and its wrapping side element, hereinafter called a wrapper-cover because it functions not only as a cover, but is also wrapped about the sides of the box in the act of securing the cover in place on its box.

Particularly referring to the wrapper cover, an object of the invention is to provide a simple form of blank which can be readily folded into position over the box to cover it and which can be quickly locked in position and subsequently unlocked at will to remove the cover when access is desired to the box.

Another object of the invention is to provide a construction which will provide a double thickness of material to the completed carton and in which the cover-wrapper as it is located about the box will locate its ends automatically in position so as to be easily interlocked by a simple manual operation.

Still another object of the invention is to provide as part of the wrapper cover herein featured

a form of cover provided with a window to permit inspection of the contents of the box through its open top and which window may, if desired, be provided with a covering of Cellophane or similar transparent material secured thereto in position to coact with the cover to make both the box and the carton substantially air-tight.

Still another object of the invention is to provide a form of package, particularly designed for carrying berries and other small fruit on which fruit flies are apt to form and which will provide a means for escape of such flies and like insects which are attracted towards light.

Various other objects and advantages of the invention will be in part obvious from an inspection of the accompanying drawing and in part will be more fully set forth in the following particular description of one form of carton embodying the invention, and the invention also consists in certain new and novel features of construction and combination of parts hereinafter set forth and claimed.

In the drawing:

Fig. 1 is a perspective view of a paper package including a paper box and associated wrapper cover illustrating a preferred embodiment of the invention and with parts of the wrapper cover broken away on one side to show the locking features of the box normally concealed by the cover and showing the clips of both the box and wrapper cover in their bent, operable position;

Fig. 2 is a detail vertical sectional view of the locking means taken on the line 2—2 of Fig. 1;

Fig. 3 is a plan view of the blank from which the wrapper-cover of Fig. 1 is formed and having a portion of the central section broken away to show the gluing of the Cellophane covering up to the flange score lines and showing the clips in their normal flat vertical position;

Figs. 4 and 5 are views of a slightly modified form of the invention which may be either the box element or the cover of the package; Fig. 4 showing a perspective view of a rectangular form of box-like construction, and Fig. 5 showing a plan view of the blank from which the showing in Fig. 4 is constructed.

Referring to the completed paper package shown in Fig. 1, there is disclosed an open top box of frusto-pyramidal form fitted about which is a similarly shaped wrapper cover 11. The box 10 is of conventional form with its wider open end uppermost and the bottom closing its narrower end. The wrapper cover has its four walls snugly engaging the outer sides of the walls of the box to reinforce the same and to assist in

maintaining the box in its originally formed configuration even independent of the box fastening means hereinafter described.

The box and its wrapper cover are of similar construction and each formed from similar contoured flat blanks of which the blank for forming the wrapper cover is shown in Fig. 3. Except for obviously necessary changes in angles of the score lines between the side flanges and their wings as hereinafter described and for the omission of Cellophane covered openings herein featured, the description of the blank of Fig. 3 will be equally applicable for the blank from which the box is formed.

The blank of Fig. 3 is a flat sheet of cardboard cut to the indicated outline and suitably scored to permit easy folding. The blank includes a four sided substantially square central portion 12 which in Fig. 3 is square and in Fig. 5 is rectangular, with each side provided with a flange of trapezoidal form in Fig. 3 and rectangular form in Fig. 5 projecting integrally from the central portion and adapted to be bent from the plane of central portion along the four connected straight score lines 13 to form the four sides of the box or wrapper cover as the case may be. Two opposing pairs of the flanges 14 and 15 are in each case provided at their opposite ends with longitudinally projecting extensions forming wings 16 and 17 adapted to be bent out of the plane of their associated flanges along wing score lines 18 in Fig. 3. These wings are of somewhat triangular form with a long edge at the hinge edge provided by the score line 18 and reduced in width therefrom outwardly towards their free ends 19. These free ends are contoured on their outer edges 20 to form a hook 21 provided on its inner side with a shoulder 22 and between the shoulder 22 and the adjacent edge there is formed a short edge 23 adapted to be locked by the fastening device hereinafter disclosed. The space in advance of this short edge is sometimes hereinafter referred to as a clip receiving space. The other opposing pair of flanges 24 and 25 are provided approximately at their respective centers and thus removed from their outlining edges with an easily bendable metal clip 26. Care should be exercised in selecting the material and thickness of the metal clip so that it is so flexible that it can be readily bent by the finger manipulation of the operator and of sufficient rigidity so that it will maintain itself in its bent position when functioning as a fastening means and at the same time which can be readily rebent back into its normal flat inoperative position to permit unfastening of the cover where subsequent access is desired to the contents of the box and where it is desired to unfasten the box and return it to its original flat blank position. In one form of the invention these clips are formed of thin sheet brass.

The clip 26 extends perpendicular to the associated flange hinge line 13 and has its end nearest the hinge line secured to the associated flange by permanent fastening means 27 leaving the free bendable end 28 projecting towards but spaced from the adjacent outer edge 29 of the flange.

The wrapper cover illustrated is provided with a window opening 30 to permit inspection of the top of the contents of the box. The open top of the box may be provided with a covering 31 sometimes hereinafter referred to as a wrapper and which may be formed of Cellophane with its outer edge glued to the underside of the central

portion which outlines the window opening as shown in Fig. 3. In this case the outlining edge 32 of the Cellophane sheet extends to the score line 13 so as to insure that the Cellophane wrapper will completely close the open top of the box therebeneath. It is herein suggested that a similar form of Cellophane covered opening be formed in the bottom of the box so that its contents may be inspected through both the top and bottom of the package.

It has been found that certain small fruit flies form in such boxes and have a tendency to move towards the light and collect on the underside of such Cellophane window coverings. These flies will escape if given the chance and accordingly the Cellophane covering 31 is provided with a plurality of holes or vents 33 which are in size and number sufficient to permit the imprisoned insects to escape but which of course are sufficiently small to prevent small berries, peas or the like, from leaking out of the box.

The structure illustrated in Figs. 1 to 3 features the use of only two fastening devices, one at opposite ends of the box or its cover and this is sufficient for the usual pint or quart size berry box and the like. However, should the boxes or their covers be relatively shallow, it would not be economical to provide wings of the necessary length to permit them to overlap as in Fig. 1 and accordingly in the showing in Figs. 4 and 5 the wings 34 are merely of sufficient length to insure the rugged closed corners 35 as was the case in the Fig. 1 form, and each of the wings 34 is provided with its own independent fastening clip 36; there being shown four in the blank of Fig. 5.

For the purpose of showing that the boxes and associated covers need not be of the pyramidal form as shown in Figs. 1 and 3, the blank of Fig. 5 is formed as a rectangle with the flange hinge score lines 37 intersecting at right angles so that when the blank is folded along these lines there is formed the rectangular form of box or cover illustrated in Fig. 4. In all other respects the Fig. 4 structure corresponds with the box 10 of Fig. 1. It is obviously within the scope of the disclosure to make the box and cover with the lapped wing and single clip structure shown in Fig. 1 with the perpendicular sided form suggested in Fig. 4. While the wrapper cover of Fig. 1 was illustrated as having a depth not quite as deep as the box but of a depth so that the flanges 14 and 15 of the cover would overlap and thus help to secure the box fastening means, the preferred practice is to have the cover of the same depth as the box which it encloses and thus provide at least a double thickness of wall to the completed package for its entire depth. This is of advantage in that the greatest distorting strain is at the bottom of the box and it is along its bottom edge where the greatest degree of strength is required.

In operation and assuming for instance that an ordinary frusto-pyramidal berry box of proper size, or the paper box herein featured, has been formed and filled with fruit or other vendable merchandise, the blank of Fig. 3 is located on top of the box with its center section registering with the square top of the filled box. The flanges 14 and 15 then are pressed downwardly about their associated score lines 13 into engagement with the adjacent side of the box. Holding the flanges thus in their depending position, the other two flanges 24 and 25 are bent downwardly about their associated score line and then the wings, 75

first on one side and then on the other side are pressed inwardly towards each other until the hooked end of one wing, say 17, overlaps the hooked end of the other wing 16 and they assume the overlapped position flat against the adjacent flanges, one of which is illustrated in Figs. 1 and 2. When in this position, the short edges 23 will be in overlapped position with the hooks 21 projecting downwardly and the shoulders 22 spaced apart on opposite sides of the clip. The initially downwardly projecting free end of the clip is then bent back upon itself upwardly to form the J-shaped retaining finger 38 shown particularly in Fig. 2. This finger overlaps the superposed hooked ends of the wings to hold the cover in its folded position. It will be appreciated from examining Fig. 1 that in order that the cover move into an open position, each of the wings must move downwardly about its associated edge 13 as a hinge edge but any such downward movement of either of the wings is resisted by the metal retaining finger 38.

With the clips in the hooked position in the case of the pyramidal form of cover shown in Fig. 1, the cover is secured to the box by virtue of its pyramidal conformation against accidental separation from the box so long as the side walls are thus clipped together.

Should it be desired in displaying the package to a customer to obtain access to the contents of the box, as in disclosing berries below the top layer for inspection, the clips can be readily bent back, that is the flexible ends may be bent downwardly from the position shown in Fig. 2, into their initial position more or less flat against the flange to which they are attached to permit the releasing of the wings from their held position and thus permit the wrapper cover to be loosened so as to be easily removed from the box, after which the parts can be readily reassembled into their box closing position as illustrated in Fig. 1.

The present disclosure particularly features the use of an easily formed and quickly releasable fastening device such as the bendable clip illustrated for temporarily securing the side flanges or wings in folded position and which can be utilized to form either the box or cover quickly and without the use of any tools. There is further featured a box-like structure which can be formed from flat blanks without necessity for providing any particular accuracy in the forming of the parts nor any necessity of forming difficultly threaded slots which have heretofore been necessary in similar forms of paper box structures for receiving the hook-like ends of wings and which wings in such structures have had to be carefully inserted in the slots designed to receive the same and which careful manipulation has been necessary in order to prevent the tearing of the thin cardboard commonly used in forming such boxes and covers. With the device herein featured, the clip can be bent into a holding position about an exposed edge of the locking wing even though the parts are not formed with the exactness of fit disclosed in the illustrated showing.

While the disclosure illustrated features a more or less snug fit between the box and the cover-wrapper, there are advantages in some situations as where ventilation is desirable, to have the cover more loosely fit the box and thus provide a shallow air clearance between the box and the sides of the cover. In those cases where the box to be covered by the wrapper herein featured is an ordinary wooden berry box, such boxes are al-

most sure to vary slightly in size and the cover is quite apt to be slightly oversize. In such cases the space or spaces between the box and cover is open at its lower portion to the outside air, even in the absence of the apertures 33 illustrated. This free access of air permits at least some air circulation about and through the contents of the box.

While there have been shown, described and pointed out in the annexed claims, certain novel features of the invention, it will be understood that various omissions, substitutions and changes in the form and details of the device illustrated and in its operation may be made by those skilled in the art without departing from the spirit of the invention.

I claim:

1. In a device of the class described, a hollow article comprising a four-sided central portion having four flanges projecting respectively and integrally from the four edges of the central portion and bent therefrom to form four sides, two opposing pairs of the flanges provided with extensions from each end forming wings and each wing being bent from its associated flange and overlapping the next adjacent flange, each wing terminating in a shouldered end, the other pair of flanges overlapped by the wings being each provided with a bendable fastening clip having one end permanently secured to its associated other flange and having a free end adapted to be bent back upon itself into position to form a retaining finger adapted to be engaged by the said shouldered ends to retain the four sides in place.

2. In a device of the class described, the combination of an upstanding paper wall, a pair of wings in flatwise engagement with the wall and each terminating in an end portion having a shoulder, said shouldered ends overlapping each other with the shoulders spaced apart and facing each other to form a clip receiving space therebetween and a single bendable metal clip having one end secured to the wall and having its free end bendable about the overlapped portions of the wings to form a readily formed and releasable retaining means extending through said space and disposed to be engaged by either shoulder on any movement of its associated wing to move away from its flatwise engagement with the wall.

3. In a device of the class described, the combination of an upstanding paper wall, a wing secured in flatwise engagement with said wall, said wing having a hinged edge and a part opposite the hinged edge provided with a shoulder located by the hinged edge on the wall in spaced relation to its outlining edges and a metal clip having one end secured to the wall adjacent the shoulder and having a free end bendable across the portion in advance of the shoulder and said shoulder adapted to engage the clip and be retained thereby in its flatwise engagement with the wall, and said clip and shoulder coacting to resist any movement of the wing about its hinged edge away from its position engaging the wall and to resist any relative movement between the wall and wing in a direction parallel to the plane of the wing.

4. A paper cover for an open top box, said cover including a central portion of rectangular form and having a flange projecting integrally from each side edge, score lines separating the central portion from its flanges, said flanges adapted to be bent out of the plane of the central portion to form folded sides for the cover,

said central portion provided with a window opening, a sheet of transparent material completely and solely covering the opening, secured at its edges to the underside of the central section and extending substantially up to the score lines whereby the sheet will be substantially co-extensive with the area of the top portion and thus adapted when the cover is in place on the top to close its open top, and a pair of the opposing flanges each provided with a bendable clip constituting an element of a readily manipulated fastening means for connecting contiguous ends of adjacent flanges to secure the cover in its folded form.

5. A paper package comprising an open top box, a transparent wrapper entirely exposed to and closing the open top of the box, a wrapper cover fitted about the sides of the box and acting to secure the wrapper in place, said wrapper cover comprising a single sheet of paper folded to the shape of the upper portion of the box and provided with bendable clips forming elements of temporary fastening means acting to secure parts of the wrapper cover to each other and thus to secure the wrapper cover in its folded position securing the wrapper in place.

6. A paper blank comprising a central section of rectangular form, an extension from each side edge thereof in the form of a trapezoid and adapted to be bent out of the plane of the central section to form four sides of a hollow frustopyramidal form having converging sides, an opposing pair of the flanges provided with relatively narrow wings at opposite ends terminating adjacent their free ends in elements of a fastening means, and the other flanges each provided with a metal clip initially lying substantially flat on the blank having one end permanently secured thereto and its other end adapted to be bent from its initial flat position to engage with an adjacent element of said fastening means.

7. A cardboard blank comprising a rectangular central section provided with flanges projecting integrally from each of two adjacent edges and

each adapted to be bent at an angle to the plane of the central portion along a score line to form a pair of walls extending at right angles to each other, one of said flanges provided with a wing forming extension adapted to be bent therefrom in lapping relation to the other flange, and fastening means for securing the flanges together and including a metal clip having one end secured to the other flange and having a free manually bendable end projecting from its secured end in a direction away from the associated score line and bendable across said extension to secure the same in its position overlapping the said other flange.

8. In a device of the class described, the combination of two parts in vertical overlapping relation, fastening means for temporarily securing the same together, said means including an element formed of an initially flat manually bendable metal clip secured to the overlapped part and spaced from the outlining edge of said overlapped part and the overlapping part provided with a short edge terminating in a hook and forming a coacting fastening element adapted to be lapped by the metal clip when the clip is bent back upon itself over said short edge.

9. An overall cover for an open top box of berries and like small articles in which fruit flies and other small insects are apt to germinate, said cover provided with means for locating the same in operative position on the box, and the cover formed at least in part of transparent material of substantial size affording visibility to inspect the berries or other contents of the box and said sheet provided with a vent sufficiently large to permit the escape from the box of such insects as may be attracted by the light through the transparent sheet to move up on to the underside of the sheet and said vent being sufficiently small to prevent the berries or other contents from leaking therethrough out of the box and sufficiently small so as to prevent flies and other large insects from entering the box.

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