

Nov. 2, 1965

H. F. BESS

3,215,332

CARTON

Filed Dec. 21, 1962

2 Sheets-Sheet 1

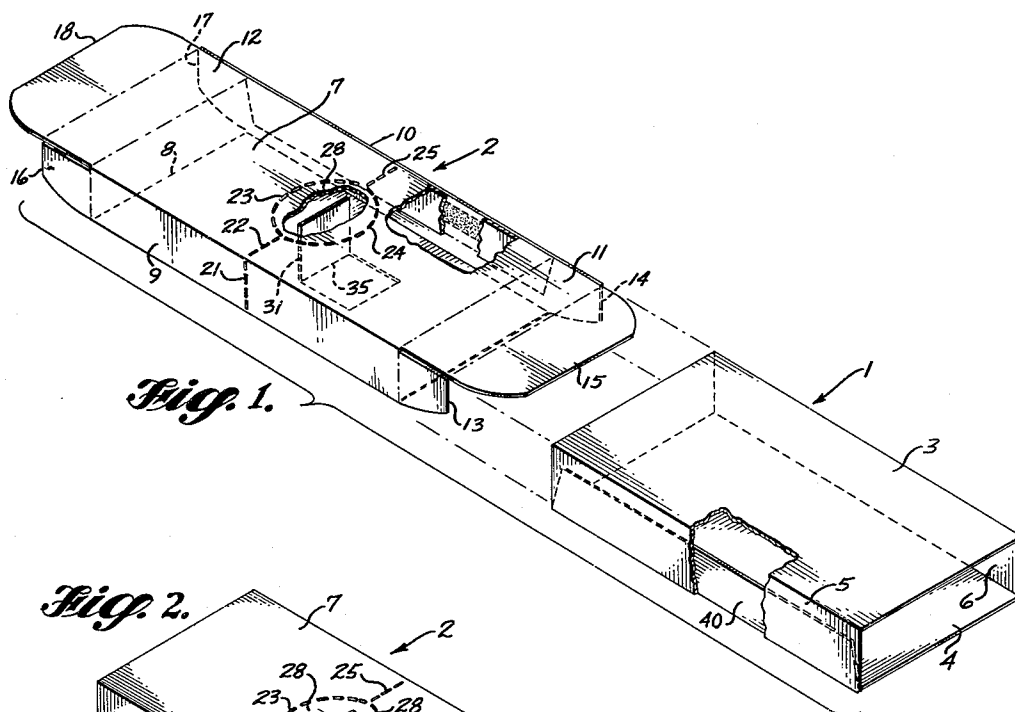


Fig. 1.

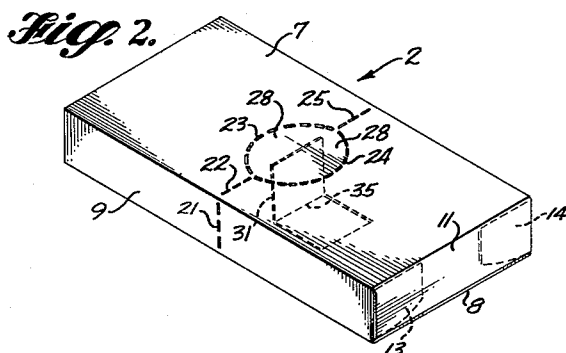


Fig. 2.

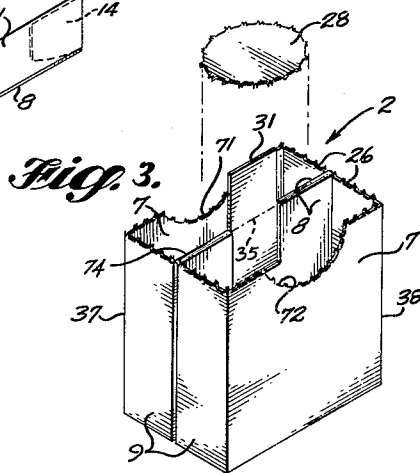


Fig. 3.

INVENTOR.
HENRY F. BESS

BY *Leslie G. Walker & Daniel C. Block*
ATTORNEYS

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Fig. 4.

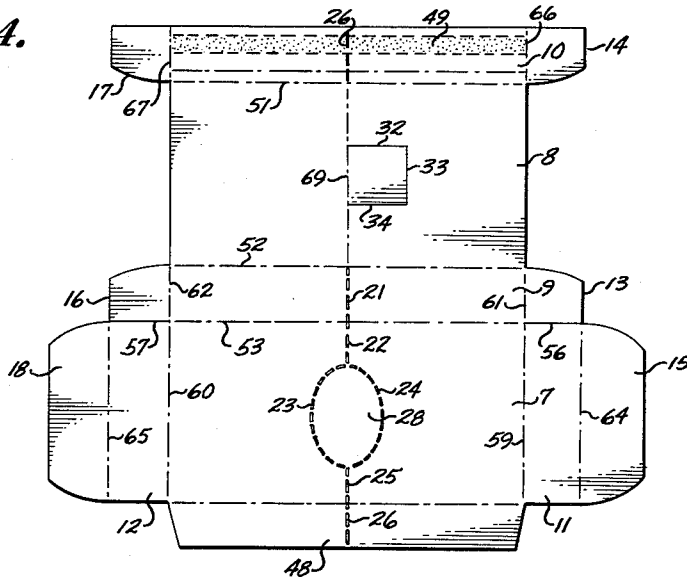
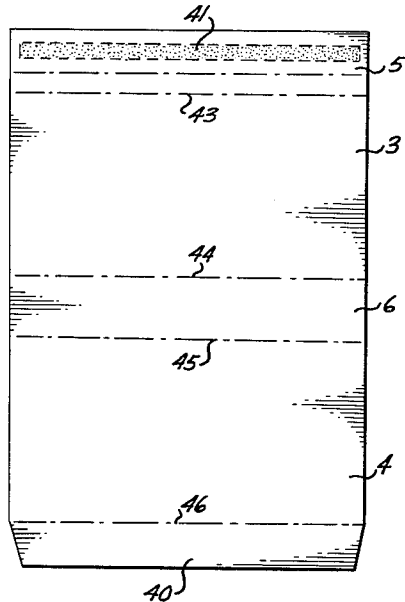


Fig. 5.



INVENTOR.

HENRY F. BESS

BY

*Leslie G. Miller &
Daniel C. Block*
ATTORNEYS

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CARTON

Henry F. Bess, Rochester, N.Y., assignor to Weyerhaeuser Company, Tacoma, Wash., a corporation of Washington

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 2 Claims. (Cl. 229—19)

This invention pertains to cartons and more particularly, it covers a novel carton that may be used for shipment and also storage of the articles shipped besides providing for the removal of the articles therefrom.

A primary object of the invention is to provide a carton as above indicated which comprises an outer container and an inner container within the outer container and slidably removable from therewithin, the inner container being provided with means for quick and easy opening thereof without the use of a knife or other tools or aids and without the opening of any flaps, folds or the like.

Another object of the invention is to provide a carton as above indicated in which the inner container can be so opened in a single, quick movement.

A further object is to provide such a carton in which the inner container can be so opened into two parts or packages each having contents of its own.

Still another object is to provide such a carton in which the inner container can be so opened into two open parts or packages ready for immediate removal of the contents of each and independently of the removal of the contents of the other part or package.

Yet another object of the invention is provide a carton as above indicated which is not destroyed or rendered unusable by the opening of the inner container thereof but, on the contrary, may continue to be used permanently or as long as desired in perfect condition without any alteration.

A still further object is to provide such a carton in which the two parts or packages produced from the inner container are held together rather than being separated or severed from each other and which can be closed and placed back within the outer container.

Another object is to provide such a carton in which the two parts or packages produced from the inner container are of the same size and shape and are substantial duplicates of each other except for a reversal of parts, the two parts or packages being in hinged or relatively swingable relation to each other and positionable in back to back, exactly coextensive, flush relation to each other when open.

A further object of the invention is to provide such a carton in which the two packages have special provision for dispensing or extracting the contents of each package.

Still another object is to provide such a carton in which the special provision of one of the packages for dispensing the contents thereof is automatically formed as part of the opening of the inner container while this provision in the other package is easily and quickly produced by a single supplementary movement by the person opening the inner container.

It is another and very important object of the invention to provide a special carton for the shipment, carrying, dispensing, return, storage, protection, and safe keeping of two stacks or packs of relatively thin, flat articles, especially the type that can be easily damaged, scratched or is otherwise perishable, such as 35 mm. slides, the carton being of the type above indicated, the stacks being so disposed and the carton being so constructed that a stack is automatically contained in each of the dispensing packages after the original opening of the inner container, the stacks permanently remaining in the respective parts or individual containers when the articles of the stacks are

returned therewithin and the parts or containers are moved into the flat condition relative to each and inserted back into the outer container, ready and properly disposed for redispensing whenever desired.

Yet another object is to provide a special carton as indicated immediately above in which the inner container is provided with special means for dividing and separating the two stacks and keeping them substantially perfectly in their place with the articles of each stack in substantially perfect alignment with each other prior to the original opening of the inner container and thereafter when the latter is in a closed substantially flat condition with the stacks contained therein.

Another and most important object of the invention is to provide a carton such as indicated in the above in which the inner container is an ordinary and inexpensive rectangular box with the usual end flaps and through which ends the container is originally filled with the mere additional inclusion of simple and inexpensive break line and tab means.

Other objects, advantages, and features of the invention will appear upon proceeding with the following illustrative description, read in conjunction with the accompanying drawing, in which:

FIGURE 1 is an exploded perspective view, partly broken away, of a preferred form of the invention with the end flaps of the inner container in open condition prior to original filling of such container;

FIGURE 2 is a perspective view of the inner container shown in the original closed condition as when originally filled;

FIGURE 3 is a perspective view of the inner container of FIGURE 2 shown broken open with the two halves in back to back relation and further with a portion of the inner container shown in a removed condition prior to its being discarded;

FIGURE 4 is a plan view of the blank from which the inner container is formed; and

FIGURE 5 is a plan view of the blank from which the outer container is formed.

Referring to the drawing figures in detail, the numeral 1 generally designates the outer container or envelope and 2 the inner container of the carton.

The outer container 1 consists of a pair of opposite faces 3 and 4 and sides 5 and 6, the remaining two sides or ends being open for insertion and removal of the inner container 2 into and from, respectively, the outer container.

The inner container 2 comprises a pair of opposite faces 7 and 8, sides 9 and 10 and a pair of opposite, closed side or end portions 11 and 12 held in position by flaps 13 through 15 and 16 through 18.

It is therefore seen that the outer container 1 is of rectangular box-like form with two opposite open ends and open through the center, the inner container 2 also being of rectangular box-like form but with all six of its sides being closed as indicated in FIGURE 2. The latter represents the original closed condition of the inner container with its contents there inside (not shown in the drawing) consisting of two stacks of 35 mm. slides in side by side relation. The length of the inner container is the same as that of the outer container and its form and size is otherwise such as to allow it to be relatively snugly received within the outer container, thus to constitute the instant carton.

The inner container 2 also has weakened break line means 21 through 26 (26 only being shown broken in FIGURE 3) along the along the face 7 and sides 9 and 10 thereof. As shown in the drawing, these break line means are lines formed by perforations although other means may be employed to provide lines of weakness or

of weakened fibers along which the inner container can be relatively easily broken. It is to be noted that the means 21, 22, 25 and 26 are straight lines and in a plane normal or perpendicular to the sides 7, 9 and 10, and at mid-lengths of these surfaces exactly dividing the inner container 2 in half while means 23 and 24 are curved lines of symmetrical form which are mirror reflection images or of complementary form to each other along said plane forming together an oval 28 therewithin with the long axis thereof falling in the above noted plane and which oval is exactly centered on the face 7 both lengthwise and crosswise.

The inner container 2 also has a square tab 31 extending from the face 8 in the aforesaid plane. This tab is formed from face 8 by cuts 32 through 34 (see FIGURE 4) and by bending up or inwardly the portion of face 8 therewithin along the uncut side of the latter where the portion remains connected to the rest of the face. This side or line of connection after the bending constitutes a hinge at 35 about which the tab 31 can swing completely in either direction. This is important in order to permit and facilitate either total or partial removal of the contents of the left hand half 37 (as viewed in the drawing in FIGURE 3) of the inner container after opening of the latter at the break line means, to permit or facilitate refilling of the halves 37 and 38 (see FIGURE 3) or replacement of part of the 35 mm. slides when the halves are in an open condition, and to permit closing of the halves when so refilled or part of the contents are therewithin and it is necessary for the tab to swing during the closing movement.

The tab 31 extends substantially the entire thickness of the inner container 2 as seen in FIGURES 1 and 2 terminating just short of the surface 7. The tab is also perfectly centered relative to the width of the inner container and with respect to the oval 28 and the opening subsequently formed by the removal thereof and the closing of the halves 37 and 38 placing the inner container back into a flat or planar condition in the lengthwise or long axis direction of the oval and oval opening. The tab, of course, is also centered with respect to the oval and oval opening, therebelow or within the container, in the crosswise or short axis direction thereof by virtue of the tab extending in the plane aforesaid mentioned. When the inner container has been broken open and the oval 28 removed, the tab is so centered in the crosswise direction of the oval opening when the contents or a good part of them have been replaced or remain within the halves 37 and 38 and the latter are closed, otherwise the end of the tab may be in an off center position.

The outer container 1 is formed from the blank shown in FIGURE 5 consisting of opposite face portions 3 and 4, side portions 5 and 6, and flap 40. The side portion 5 also contains a suitable adhesive at 41 which may be moistened for securing the portion and flap 40 together during the formation of the outer container or, a suitable adhesive may be applied to the portion 5 in the area indicated at 41 in the course of forming the outer container for securement to the flap 40. During formation of the container, the blank is bent thereacross at 43, 44, 45 and 46 so as to produce square corners between the respective sides of the outer container. The outer container is formed of relatively heavy stock such as a cardboard in order to preserve the box like, square corner character of the container when resting by itself.

The inner container 2 is formed from the blank shown in FIGURE 4 comprising opposite face portions 7 and 8, side portions 9 and 10, and flap 48. The side portion 10 also contains a suitable adhesive at 49 which may be moistened for securing the portion and flap 48 together during the formation of the inner container into the original open condition thereof shown in the left hand part of FIGURE 1 or, a suitable adhesive may be applied to the portion 10 in the area indicated at 49 in the course of forming the inner container into the open condition for

securement to the flaps 48. During formation of the container into the open condition, the blank is bent thereacross at 51, 52, 53, and 54 so as to produce square corners between the respective sides of the inner container. The inner container is also formed of relatively heavy stock such as a cardboard in order to preserve the square corner character of the container when resting by itself.

The face portion 7 of the blank shown in FIGURE 4 has end portions 11 and 12 extending therefrom from which inturn extend end flap portions 15 and 18, respectively. The side portions 9 and 10 also have end flap portions 13 and 16 and 14 and 17 respectively. The end portions 11 and 12 and end flap portions 13 and 16 are cut therebetween at 56 and 57 in order to allow inward folding thereof across their extents at 59 and 60 and 61 and 62, respectively, for original closing of the inner container. The end flap portions 15, 18, 14 and 17 are also folded inwardly across their extents at 64, 65, 66 and 67 respectively during the original closing of the inner container. The blank shown in FIGURE 4 also is perforated at 21, 22, 23, 24, 25 and 26 as already indicated in connection with FIGURE 1. The oval within the perforations 23 and 24 is also identified by the numeral 28. The face 8 has already been indicated as being cut at 32, 33 and 34 for upward or inward swinging of the tab portion 31 therewithin. The numeral 69 designates the transverse center line of the face 8 about which the tab portion 31 is bent and also about which the face 8 bends and the halves 37 and 38 of the inner container swing during opening of the inner container and subsequent movement of the halves 37 and 38 into and out of the closed condition thereof.

The inner container 2 is filled with two stacks of 35 mm. slides, one being inserted through each of the open ends thereof, when the container is in the original open condition shown in FIGURE 1. These stacks substantially fill the entire inside of the container, except for the space occupied by the dividing tab 31 and the space in continuation thereof on each side, in relatively snug, straight piled relation. After such filling or loading of the inner carton 2, the side flaps 13, 14, 16 and 17 are bent 90° inwardly and then the end portions 11 and 12 are bent down and the end flaps 15 and 18 inserted between the respective stacks and the face 8 of the container, thus to produce the original closed condition of the inner container as shown in FIGURE 2. The closed inner container 2 is then inserted within the outer container 1 through one of the open ends thereof until only the end surfaces 11 and 12 are visible, thus to make up the complete carton.

This carton may be used for shipping of the contents thereof either separately or in a larger container with other similar or different cartons or items. Or the carton may be used as a protective carrying case or means, of smaller size than a glass case, to be conveniently slipped into a pocket or pocketbook or placed in a package or bag for transporting the perishable or easily damageable contents from a store or elsewhere. The carton may also be as easily and conveniently used by a person after the original breaking open of the inner container, to be covered below, for the safe carrying of the slides from place to place.

When it is desired to use or look at the slides for the first time, the inner container 2 is first removed from the outer container or envelope 1 through either of the open ends of the latter. The container is then positioned so that the perforated face 7 is uppermost if the container is not already in this position. The container 2 is next held in both hands with a hand to each side of the perforated lines 21 through 26 and bending pressure is applied so as to separate or break open the container along the perforated lines 21, 22, 25 and 26, and whichever of the curved lines 23 and 24 happens to break. The container is then moved into an open position sufficient for the easy removal of the contents therefrom and pref-

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erably into the fully opened position in FIGURE 3 by bending the bottom face 8 or causing it to be folded on itself about the transverse center line thereof designated in FIGURE 4 by the numeral 69.

During this breaking open operation, the oval portion 28 will adhere to one or the other of the halves of the face 7 and must be removed therefrom along the unbroken perforated line in any suitable manner. The breaking open operation just described automatically provides one of the half oval openings 71 and 72 while removal of the oval portion 28 provides the other. These openings constitute finger access openings to facilitate ready removal of each of the flat sides in turn lying next, below or within the respective openings. During such individual removal of the slides or upon wholesale removal of all of the slides from one or both of the pockets or halves 37 and 38, the tab 31 is free to be swung in either direction by the extraction itself or in preparation for such removal by moving the same with a finger. The tab can also be freely moved from side to side to permit or facilitate filling of the pockets again or the return of removed slides therewithin.

The inner container 2 is thus easily and in but a single quick movement of the hands broken open into a pair of complementary or reversely identical dispensing containers or packages 37 and 38 which remain hingedly attached to each other by the unsevered face 8 along the transverse center line 69 thereof.

As already indicated, the dispensing containers or halves 37 and 38 are refilled by the slides after they have been used, whether the pockets or halves had been entirely or only partly emptied of slides, and the halves 37 and 38 swung relative to each other about the interconnecting portion or hinge line 74 of the face 8 in an opposite direction to that employed for opening into closed conditions, thus returning the inner container 2 to a substantially flat, planar condition similar to its condition prior to breaking. The inner container is now reinserted and replaced within the outer container 1 thus to reconstitute the carton. It is obvious that the outer container 1 retains the inner container 2 in the flat condition with the parts 37 and 38 thereof together when and for as long as the inner container is within the outer container.

The carton as so reconstituted may be used for storing the contained slides or for safekeeping and protection of the same when not in use, from breakage, injury such as scratching or bending, damaging sunlight, dust or dirt, things that can be spilled on the slides thus ruining them, moisture and undue heat, for instance. One or more of these small cartons can also be used as carrying cases, as above indicated.

Regardless of the specific use to which the carton or case is put, the latter can be quickly and conveniently opened at any time for reuse of the slides therewithin by simply slipping the inner container from the outer container and allowing the two dispensing halves 37 and 38 of the former to swing open into the position shown in FIGURE 3. The parts 37 and 38 can be refilled, swung closed again, and reinserted in the outer container and then subsequently reopened again in the manner above described for reuse of the slides, repeatedly and as often as desired.

When the dispensing containers or halves 37 and 38 of the inner container are in the closed, flat, coplanar condition like the FIGURE 2 showing but with the perforations broken and the oval portion 28 removed, the tab 31 which automatically assumes the upright position shown, and also described in connection with FIGURE 1, when the stacks of slides are within the halves, serves the important function of keeping the respective stacks of slides separated slightly and snugly in their places in substantially perfect straight piled or aligned relation ready at all times for subsequent reopening. Should the

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halves 37 and 38 be closed when partly filled with slides and there be more slides in one half than in the other, that is the extent of the filling is unequal, the tab 31 serves the further most important function of preventing the slides in one of the closed halves which are in addition to the number in the other closed half from sliding over into a position across the dividing line of the two halves to lock the latter in the closed condition and thus prevent them from opening or to interfere with the opening process. As long as there are a few slides in one half to maintain the tab in an erect position, the slides in the other half will be retained in place even if this latter half should be entirely filled with slides thus to permit and assure reopening of the two halves of the inner container in unobstructed fashion at all times.

Although the carton which is illustrated in the drawing and which has just been described in detail has been depicted as containing or being for the use of 35 mm. slides, other flat articles may be contained in a similar carton or even articles or items that are not flat. Also, such a carton may be used for consumable articles or items, for instance, after which use and the halves or parts of the inner container are finally emptied, the carton may be discarded.

While the carton has been described as being constructed of cardboard, other more permanent material more suited to the construction of a containing, carrying and dispensing case may be employed.

Also, a finger access opening need not necessarily be automatically formed as part of the breaking open of the inner container, but the perforations, for instance, may go straight across for the breaking open operation with additional break line means to each side thereof for subsequent breaking out for the formation of the access openings.

Further, the inner container 2 does not necessarily have to be broken in the middle into two reversely identical parts, although this would be the more usual form.

In view of the above and otherwise, it should be evident that many variations in detail and other embodiments of the invention in its various aspects and applications may be had. It is accordingly desired and intended that the invention be limited only by the language of the appended claims liberally construed within the board spirit of the invention in its various aspects.

What is claimed is:

1. A carton comprising an outer container and an inner container within said outer container and slidably removable from said outer container through at least one side thereof, said inner container comprising, a pair of opposite faces and a pair of side walls extending between said faces, a weakened break line extending across the side walls intermediate the ends thereof, a weakened break line extending across one of said faces and coinciding with the break line extending across said side walls, said break line extending across one of said faces provided with an oval break out section intersecting said break line to provide hand holes for the easy removal of contents within said inner container, said opposite face being provided with a crease line coinciding with the break line extending across said side walls, a tab section cut out of said opposite face and hinged along said crease line to provide a partition within said inner container, so that upon removal of said inner container from said outer container, the said inner container may be broken along said break lines in said side wall and one of said faces and bent along said crease line in said opposite face by the application of a bending pressure on said inner container whereby the oval portion may be thereafter removed and the contents within said inner container removed.

2. A carton comprising an outer container and an inner container within said outer container and slidably removable from said outer container through at least one side thereof, said inner container comprising, a pair of opposite faces and a pair of side walls extending between

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said faces, a weakened break line extending across the side walls intermediate the ends thereof, a weakened break line extending across one of said faces and intersecting the said weakened break line extending across the side walls, a crease line extending across the opposite face which coincides with the break lines across the side walls, a tab cut out of said opposite face and hinged along said crease line and extending upwardly toward said break line in said one face to provide a partition in said inner container, so that upon removal of said inner container from said outer container, the said inner container may be broken along said break line in said side walls and one of said faces and then bent along said crease line in

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said opposite face by the application of a bending pressure on said inner container.

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FRANKLIN T. GARRETT, *Primary Examiner*.