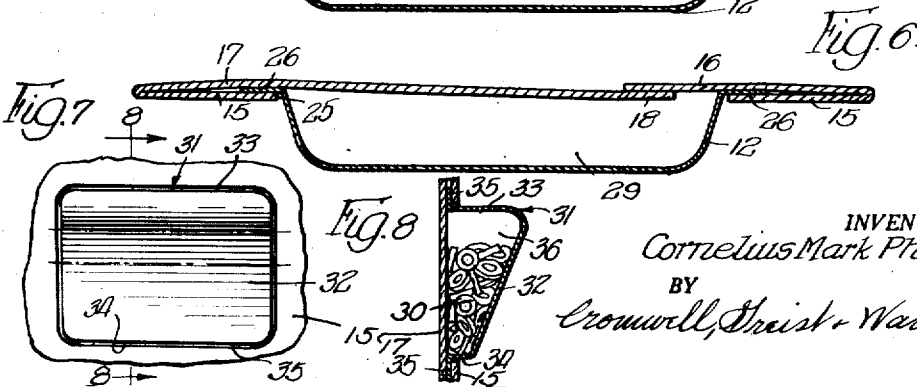
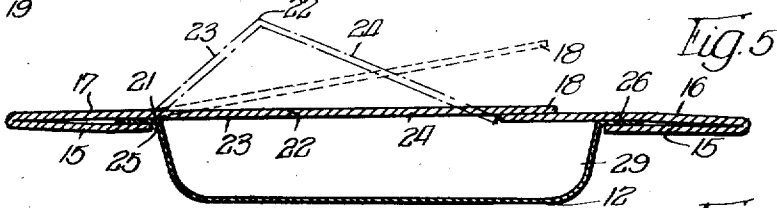
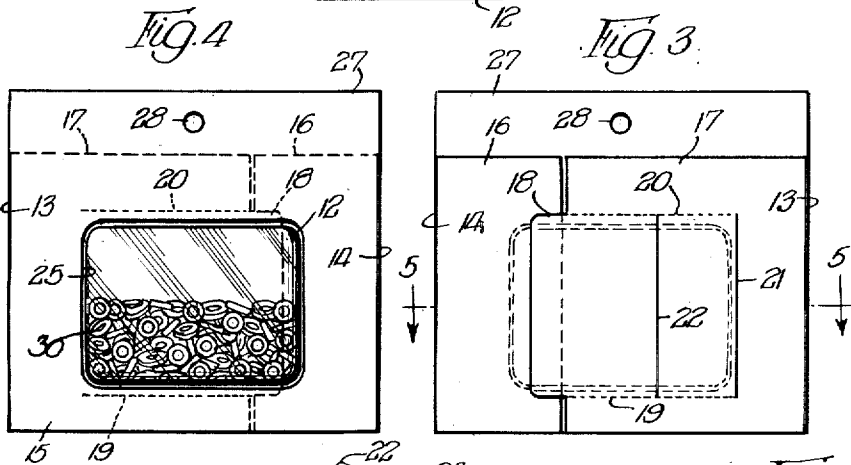
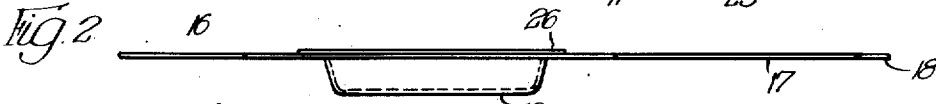
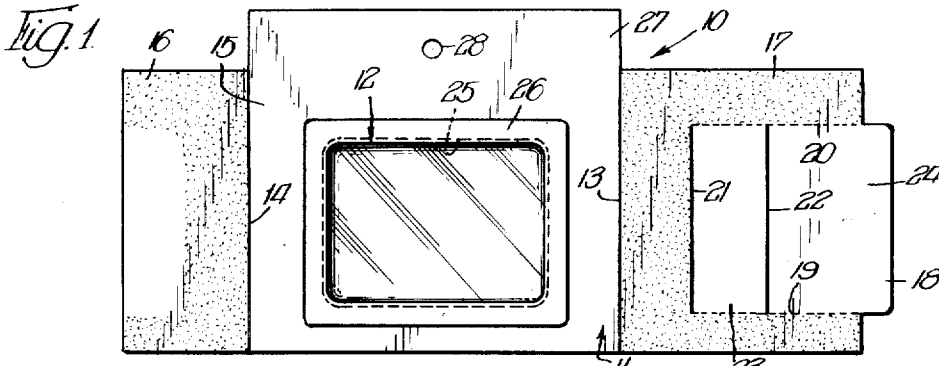


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RECLOSABLE PACKAGING DEVICE

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RECLOSABLE PACKAGING DEVICE

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6 Claims. (Cl. 206—78)

The present invention relates to a simple and ingenious improvement in a paperboard packaging device for articles commonly sold in bulk heretofore. The device features a protuberant transparent window of a semi-rigid character which covers a window opening in a forward paperboard display panel of the device, the window projecting forwardly of said panel in a manner of a bubble or bay. A relatively large number of articles may thus be placed in the display chamber defined between the window and a composite rear backing panel which completes the packaging device. They are attractively and effectively displayed for sale, their physical characteristics being exhibited for all to view.

It is a particularly important objective to provide a packaging device of the foregoing general sort which is reclosable, so that upon opening and removal of a portion of its contents the remainder may be resealed for future use.

In the production of the package a composite paperboard packaging device is positioned upside down and the goods to be merchandised therein are placed in a chamber provided by its then upwardly exposed window, upon which the folding of the device to completed form proceeds, the backing panels being secured to the rear of the forward panel to close up the package. The articles of merchandise are perfectly shielded and protected in the display chamber in question, and are exhibited through the protuberant window in a very attractive fashion, for viewing from the front and all four sides of the window.

Provisions are made by appropriately perforating and creasing one of the component rear backing panels of the packaging device to permit access to the article containing chamber. This is done by tearing partially free a flap on one of the backing panels, thereby exposing the rear of the window chamber. After the desired article or articles have been removed the flap is replaceable to reclose the article containing chamber. A free forward tongue thereof is slidably inserted beneath an adjacent edge of the other component backing panel to hold the flap in place, so that the articles are thereafter effectively contained without likelihood of loss or damage.

The package is very economical in respect to the manufacture thereof by reason of the small sized paperboard blank which is employed in its fabrication and the simplicity and speed of the procedure for folding it, as well as the fact that the transparent, semi-rigid window element thereof is very rapidly and inexpensively produced. It is heat-molded and died out in large numbers from sheets of cellulose acetate butyrate, polystyrene or equivalent material capable of being thermoplastically shaped in a desired section and to maintain its outline upon cooling.

Considered more specifically, the packaging device simply comprises a rectangular two-ply paperboard body or mounting frame and the pre-formed window member described above. The frame is formed of a paperboard blank subdivided generally by two parallel creases or

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scores into a forward rectangular display panel and a pair of back forming panels hinged to the opposite sides thereof. The forward panel is died out to provide a rectangular window opening within the margins thereof.

As to the component backing panels, the combined widths thereof, in the main, equal the width of the forward display panel, with a laterally projecting tongue or finger tab on one backing panel overlapping the other. The free edges of the component panels thus meet in substantially coincident, closing relation when the packaging device is completed, the tongue being exposed for gripping to unseal the package.

One of the backing panels is preferably of substantially greater width and area than the other, affording an area from which a reclosable closure flap may be taken, of which the tongue or finger tab is a part. In order to derive the flap the larger panel is provided with a pair of parallel perforated or otherwise weakened lines extending inwardly from the outer free edge of the panel element, on each end of the finger tab. The inner termini of the lines of perforation are connected by a transversely extending crease which, after the flap is torn partially free along the perforations, constitutes a hinge about which the flap may be swung outwardly to expose the contents of the window chamber. The flap is preferably subdivided further by a transversely extending, medial crease paralleling the hinge crease, about which it may buckle for convenience in replacing the flap to sealing position.

In the condition of the package prior to opening, the outwardly projecting tab or tongue of the closure flap is conveniently available for grasping by the thumb and forefinger in opening the package. Since the backing panels, of one of which the flap is part, are adhesively secured to the forward display panel other than in the area of the window of that panel, when the flap is torn along its perforation lines, it comes away from the panel up to its hinge crease to expose the window chamber. When it is desired to reclose the package, the flap tongue is slidably tucked beneath the edge of the smaller sized panel which it previously overlay, then thrust home into frictionally locked condition beneath the smaller panel, entirely sealing the remaining contents of the package.

The foregoing statements are indicative in a general way of the nature of the invention. Other and more specific objects will be apparent to those skilled in the art upon a full understanding of the construction and operation of the device.

Two embodiments of the invention are presented herein for purpose of illustration. It will be appreciated that the invention may be incorporated in other modified forms coming equally within the scope of the appended claims.

In the drawings:

Fig. 1 is a plan view of a composite, slitted and creased paperboard blank and window unit from which the improved device is fabricated, an application of adhesive to certain areas of the blank being indicated by stippling;

Fig. 2 is a view in side elevation of the unit of Fig. 1;

Fig. 3 is a rear view of the package as completed from the unit of Figs. 1 and 2;

Fig. 4 is a front view of the completed package;

Figs. 5 and 6 are views in section along a line corresponding to line 5—5 of Fig. 3, showing the package in its initial sealed condition and in its reclosed and sealed condition, Fig. 5 indicating in dotted line the manner of manipulating a reclosure flap;

Fig. 7 is a fragmentary face view of a packaging device in accordance with a further refinement of the invention; and

Fig. 8 is a fragmentary view in vertical section along line 8—8 of Fig. 7.

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Referring first to Figs. 1 and 2, there is illustrated therein a paperboard blank-plastic window assembly 10 from which the improved package is fabricated. It consists of a relatively stiff though flexible paperboard blank 11 which is, in general, of elongated rectangular outline and a protuberant, tray-like window bubble 12, also of generally rectangular outline. Window member 12 is thermoplastically formed of transparent cellulose acetate, butyrate, polystyrene or equivalent window material, being of substantial depth at a right angle to the plane of blank 11, as illustrated in Fig. 2. These transparent elements are conventionally formed by mass production molding and are of a semi-rigid nature, capable of taking a reasonable impact without being permanently damaged or deformed by indentation. However, even if this occurs it is not serious, since the semi-rigid window 12 is non-frangible and will maintain a sealing relation to articles of merchandise enclosed therein even if deformed to some extent.

Paperboard blank 11 is subdivided in a general way by parallel, transversely extending, cut-scored creases 13, 14 into three main sections. These are a centermost display panel 15 of rectangular outline, a left hand backing panel element 16, also rectangular in shape, and a rectangular right hand backing panel element 17, on the outer free margin of which a laterally projecting finger tab or tongue 18 is formed. Panel element 17 is preferably of substantially greater length and area than the element 16, and the aggregate of the length of these two elements, excepting tongue 18, equals that of center display panel 15. Accordingly, when panel elements 16 and 17 are folded 180° toward one another about creases 13, 14, their free edges will lie in substantially coincident, edge-abutting relation and tongue 18 will overlap the outer surface of the panel element 16.

A reclosable closure flap 19, of which tongue 18 is an integral outer part, is derived from the larger sized panel element 17. This is done by forming a pair of parallel longitudinal lines of perforation 20 in element 17, which extend inwardly from the opposite extremities of tongue 18. The outer ends of perforated lines 20 are joined by a transversely extending crease 21, and the flap 19 is medially subdivided by a further crease 22 paralleling crease 21 into an inner flap hinging section 23 and an outer tongue section 24, the flap being capable of being buckled about crease 22 in use.

Center display panel 15 is provided with a generally rectangular window opening 25 in which the transparent window member 12 is snugly received. Member 12 is equipped with a continuous, outwardly extending peripheral flange 26 which has face engagement with the rear surface of panel 15, as illustrated in Fig. 2. Display panel 15 is also preferably provided with an upwardly or outward extension 27 having a suspending hole 28 by which the package may be hung up, as for sale and subsequently in a workroom for convenient availability when it is desired to remove further articles from the article-receiving chamber 29 (see Figs. 5 and 6) constituted by window member 12.

In completing the package from the blank-window assembly 10 of Figs. 1 and 2, window member 12 is dropped into the window opening 25 of panel 15 and its flange 26 is adhesively secured to the rear surface of panel 15 around the opening, which will be upper surface as viewed in Fig. 2. The commodities to be packaged and displayed, for example a collection of grommets or washers, such as are designated 30, are then charged into the chamber 29. The smaller panel element 16 is now rotated 180° and adhesively secured, as shown by stippling in Fig. 1, to the rear surface of panel 15. With panel element 16 so secured, the other and larger panel element 17 is similarly swung 180° and adhesively secured to rear panel 15, its tongue 18 then overlying the adjacent edge of element 16, as shown in Fig. 3, which

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depicts the rear side of the completed package. The adhesive is omitted from the rear of panels 16, 17 which overlaps the window area of panel 15, which includes the area of flap 19.

Fig. 4 shows the forward display surface of the article, it being understood that the exposed paperboard area will be suitably printed with ornamental or promotional material. The contents 30 are attractively housed, and since they are viewable from the front and all sides the prospective purchaser is able to acquaint himself with the exact nature thereof. The articles will preferably occupy less than the entire volume of the chamber 29, so that they may be shaken around to display all their surfaces. The package as a whole is a sturdy and stable one due to its relatively stiff, two-ply construction, and will withstand the wear and tear of repeated handling in selling it and in use.

Fig. 5 shows the relationship of the parts of the package in its completed and yet unopened condition. In opening the package, the tongue 18 of flap 19 is grasped between thumb and forefinger and the flap is torn inwardly along perforated lines 20 up to the hinge crease 21. It may then be swung rearwardly about that crease to afford full access to the article-containing chamber 29. When it is desired to reclose the package, flap 19 is first buckled about its subdividing crease 22, and tongue 18 is inserted beneath the adjacent free edge of panel element 16, as illustrated in Fig. 6 of the drawings. Pressure applied to the component hinging and tongue sections 23, 24 of flap 19 will then cause the flap to slide laterally into a flat locked condition, tongue 18 underlying the edge of panel element 16, as shown in Fig. 6. In this condition, a toggle effect, plus friction between tongue 18 and panel element 16, holds flap 19 in place and re-seals the contents of the package, with the same displayed effectively when the package placed in a suspended position, as shown in Fig. 4. Flap 19 may be opened and reclosed in the described manner as many times as desired.

Figs. 7 and 8 of the drawings illustrate a further refinement of the invention, the objective of which is primarily a more effective sales presentation of the contents of the package which are to be sold. It will be appreciated that if the articles 30 are loaded in a chamber 29 of rectangular section to the extent of, say, one-half of its volumetric capacity, the chamber will naturally appear but one-half full, as shown in Fig. 4. However, if a transparent window member of the packaging device is shaped as shown in Figs. 7 and 8, the visual effect is much more impressive from a merchandising standpoint. As illustrated in Figs. 7 and 8, the window member, designated 31, is therefore molded in a non-rectangular cross section. It features a flat forward display wall 32 which tapers downwardly and inwardly from a rounded connection to a horizontal top wall 33 to a lower wall 34 which is of substantially less depth than wall 33. These walls as well as the parallel vertical side walls of the window member, merge with an outwardly extending flange 35 which has face abutment with and adhesive securement to the rear surface of the center panel 15, the specially shaped non-rectangular window member 31 then being snugly received in window opening 25 of panel 15.

In other respects, the packaging device and package of Figs. 7 and 8 are entirely similar to what is shown in Figs. 1 through 6. Assuming that the chamber 36 of the modified display window 31 is charged with the same number of articles 30 as the chamber 29 of the first embodiment, is evident that, due to the downward and inward inclination of the wall 32, they will fill chamber 36 to a substantially greater depth than appears to be the case in Fig. 4. The natural customer reaction is a favorable one, i. e., that the merchandise has been more abundantly loaded into the package. Furthermore, an element of distinctiveness is imparted to the appearance of the package by

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the structure shown in Figs. 7 and 8, as compared with the appearance of a first described form.

I claim:

1. A reclosable window type packaging device comprising a forward display panel of generally rectangular outline, said panel having a window opening in which a transparent protuberant tray-like window member is disposed to extend forwardly of said panel and provide a three-dimensional display chamber, an article in said display chamber, a pair of backing panels integrally hinged by creases to opposite margins of said display panel and folded toward one another into contact with the rear surface of said display panel, means securing said backing panels to the rear surface of said display panel, adjacent free edges of said backing panels being in approximate edge-abutting relation so as to close said display chamber, said backing panels further fixedly disposing and holding said window member relative to said display panel, one of said backing panels being provided with transversely spaced longitudinally extending weakened tear lines which define therebetween from the material of said last named backing panel a tongue-like closure flap, said closure flap having an end portion thereof projecting beyond the free edge of said last named backing panel and overextending the adjacent edge of the other of said backing panels, and a hinging crease connecting the inner ends of said lines to provide for movement of said closure flap out of planar relationship with the backing panel defining the same.

2. A packaging device in accordance with claim 1 in which said transparent window member has a forward window panel tapering downwardly and inwardly from top to bottom and side panels of triangular shape merging with the margins of said panel.

3. A reclosable window type packaging device comprising a forward display panel of generally rectangular outline, said panel having a window opening in which a transparent protuberant tray-like window member is disclosed to extend forwardly of said panel and provide a three-dimensional display chamber, an article in said display chamber, a pair of backing panels integrally hinged by creases to opposite margins of said display panel and folded toward one another into contact with the rear surface of said display panel, means securing said backing panels to the rear surface of said display panel, said backing panels being of unequal length and having adjacent free edges thereof in approximate edge-abutting relation so as to close said display chamber, said backing panels further fixedly disposing and holding said window member relative to said display panel, the longer of said backing panels being provided with transversely spaced longitudinally extending weakened tear lines which define therebetween from the material of said longer backing panel a tongue-like closure flap, said closure flap having an end portion projecting beyond the free edge of said longer backing panel and over-extending the adjacent edge of the other of said backing panels, and a hinging crease connecting the inner ends of said lines to provide for movement of said closure flap out of planar relationship with the backing panel defining the same, said closure flap being of sufficient area to at least substantially expose the interior of said display chamber when said flap is moved out of planar relationship with the backing panel defining the same.

4. A reclosable window type packaging device comprising a forward display panel of generally rectangular outline, said panel having a window opening in which a transparent protuberant tray-like window member is disposed to extend forwardly of said panel and provide a three-dimensional display chamber, said window member having a rear flange in abutting engagement with the

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rear surface of said display panel, an article in said display chamber, a pair of backing panels integrally hinged by creases to opposite margins of said display panel and folded toward one another into contact with the rear surface of said display panel, means securing said backing panels to the rear surface of said display panel, adjacent free edges of said backing panels being in approximate edge-abutting relation so as to close said display chamber, said backing panels further fixedly disposing and holding said window member relative to said display panel by reason of their contacting and holding said rear flange in engagement with the rear surface of said display panel, one of said backing panels being provided with transversely spaced longitudinally extending weakened tear lines which define therebetween from the material of said last named backing panel a tongue-like closure flap, said closure flap having an end portion thereof projecting beyond the free edge of said last named backing panel and overextending the adjacent edge of the other of said backing panels, and a hinging crease connecting the inner ends of said lines to provide for movement of said closure flap out of planar relationship with the backing panel defining the same.

5. A blank assembly for a window type packaging device comprising a paperboard body member subdivided by parallel crease lines into a center panel section and two side backing panel elements integrally connected to opposite side margins of said center panel section, said center panel section being provided with a window opening in which is received a transparent protuberant tray-like window member projecting forwardly of said center panel section, means for holding said window member relative to said center panel section and in a position to project forwardly thereof, the combined width of said backing panel elements equalling at least substantially the width of said center panel section so as to close said window member when said backing panel elements are folded toward one another into contacting relation with the rear surface of said center panel section, one of said backing panel elements being perforated inwardly from the free side margin thereof along space lines and being creased across the the inner ends of said lines to provide a tearable flap adapted to be moved out of the plane thereof, the free edge of said tearable flap projecting outwardly beyond the free side margin of said last named backing panel element so as to overextend the free side margin of the other of said backing panel elements when said backing panel elements are folded toward one another in contacting relation with the rear surface of said center panel section.

6. A blank assembly in accordance with claim 5 in which said transparent window member has a forward window panel tapering downwardly and inwardly from top to bottom and side panels of triangular shape merging with the margins of said panel.

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