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BLISTER PACKAGE

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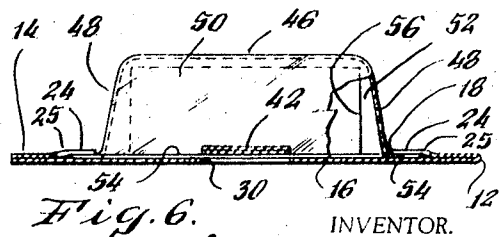
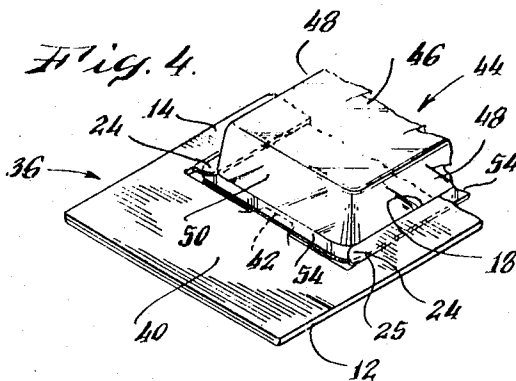
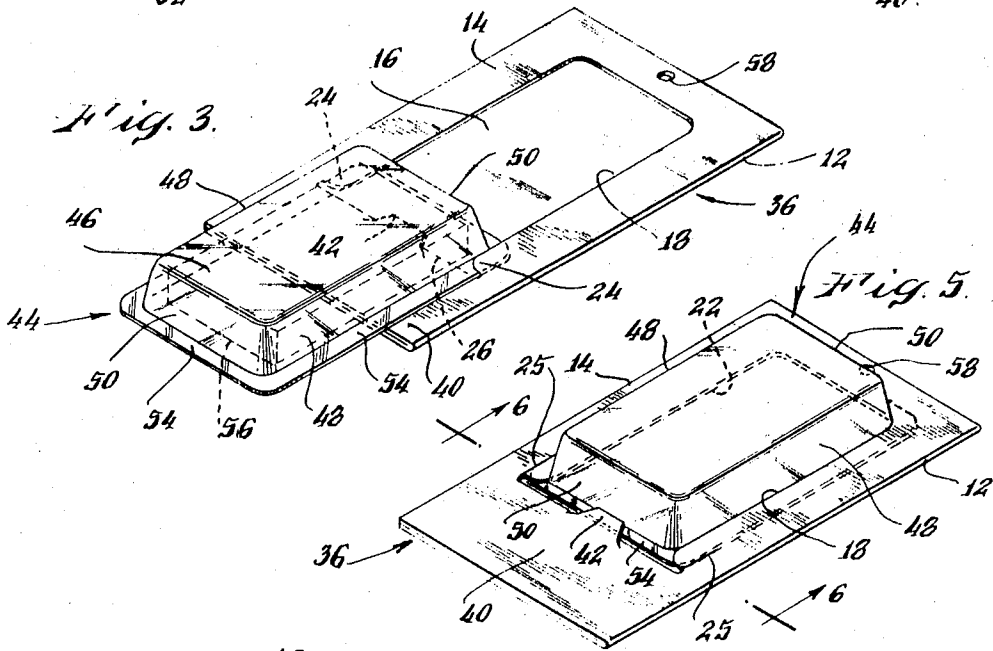
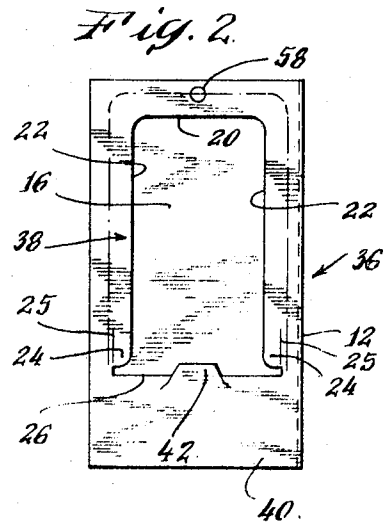
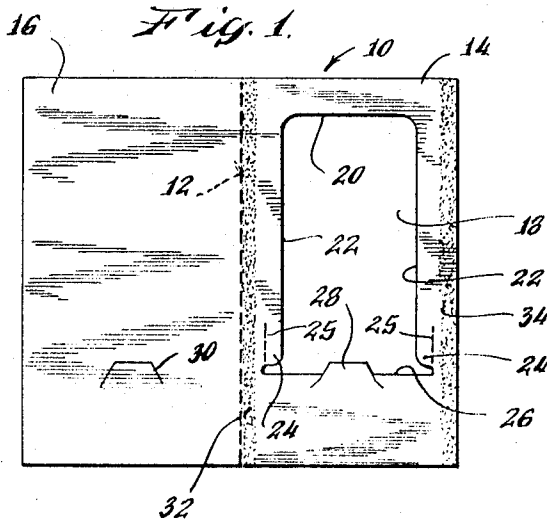


Fig. 6.

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BLISTER PACKAGE

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10 Claims

ABSTRACT OF THE DISCLOSURE

An improved blister package including a two-ply display card and a selectively removable and reinsertable plastic "bubble" having a peripheral flange. The card has an opening in one ply, a generally U-shaped track bounding a major portion of the opening to receive portions of the flange and a two-ply locking tab selectively movable to overlie a remaining flange portion to capture the "bubble" on the card.

Background of the invention

This invention relates to a blister type package for display mounting articles of manufacture and more particularly to such a package which may be opened to inspect the package article and which may be reclosed without damage to the package.

Conventional blister packages include a flanged thermoformed plastic receptacle (referred to as a "bubble") which is secured to a card support by sealing the usual flange to the card by means of a suitable adhesive or by known heat sealing methods. The displayed article may be viewed but may not be inspected without destroying the package. Moreover, these packages are extremely difficult to open, often causing the consumer great frustration and, not infrequently, broken fingernails. In any event, either the bubble or the display card must be mutilated to remove the contents.

In the United States patent to Gorton No. 2,796,985 issued June 25, 1957 and assigned to the same assignee as the instant application, there is disclosed a blister type package constructed to allow the packaged article 32 to be frequently removed and reinserted without damage to the package. The package therein disclosed includes a display card 10 having a locking flap 34 which must be bent substantially normal to the plane of the display card (note FIG. 3) to insert the bubble 25. This blister package while serving its function in a satisfactory manner has the disadvantage that the distortion of the locking flap tends to remain in the display card thus rendering the card unsightly as the locking flap does not lie in the plane of the card.

Summary of the invention

Accordingly, the primary objects of my invention are to provide an improved blister package in which a plastic bubble receptacle is: (1) securely attached to a display card, (2) removable and reinsertable therein without damaging the package, (3) able to be locked to the display card by a slight flexure thereof to prevent inadvertent removal of the article, (4) attractive in appearance and inexpensive to manufacture, and (5) lends itself to hand loading if the quantity of articles to be packaged is small, eliminating the necessity of buying expensive equipment in such cases.

To accomplish these objects, in one form, I have provided an improved blister package including a two-ply display card having an opening defined in one ply, a track bounding a major portion of the opening and a manipulable locking tab extending into the opening, and a flanged receptacle having an article receiving chamber

of substantially the same configuration as the opening. The major portion of the flange is located in the track and the locking tab is selectively manipulable to overlie the remaining free portion of the flange to capture the receptacle on the card.

Brief description of the drawing

Other objects and further details of that which I believe to be novel and my invention will be clear from the following description and claims taken with the accompanying drawing wherein:

FIG. 1 is a plan view of the inside face of a display card blank constructed in accordance with my invention;

FIG. 2 is a plan view of the display card formed from the blank of FIG. 1 showing the track in dot-dash lines;

FIG. 3 is a perspective view of the display card receiving the transparent bubble and the captured articles;

FIG. 4 is a partial perspective view showing the transparent bubble positioned in the display card prior to being locked thereto;

FIG. 5 is a perspective view of the completed locked package; and

FIG. 6 is a sectional view taken substantially along line 6—6 of FIG. 5.

Description of the preferred embodiment

Turning now to the drawing, there is illustrated in FIG. 1 a display card blank 10 formed of a single sheet of cardboard or the like material and die cut to the configuration shown. The blank is scored along a central fold line 12 to provide a front ply 14 and a back ply 16. The front ply 14 is provided with an elongated opening 18 therein defining an end edge 20, side edges 22 having at one end outwardly flared portions 24 and an entrance edge 26. Short crease lines 25 may be added to extend parallel to the side edges 22 from the corners of the flared portions 24. A substantially U-shaped locking tab 28 partially extends into the opening 18. The rear ply 16 has a substantially U-shaped cut 30 positioned to be aligned with the locking tab 28 on the front ply when the display card is folded as shown in FIG. 2.

A suitable adhesive may be applied to the inside face of the front ply 14 in the areas 32 and 34. Thus, when the card blank 10 is folded along line 12 the front and rear plies 14 and 16 are sealed together to form a display card 36 as illustrated in FIG. 2. The display card includes the bubble receiving opening 18 bounded on three sides by a U-shaped track 38 shown in dot-dash lines in FIG. 2, a ramp portion 40 located at the open end of the track and a two-ply locking tab 42 formed by the locking tab 28 overlying the U-shaped cut 30. The flared portions 24 define entrance guides which are maintained slightly spaced from the rear ply 16 by the short crease lines 25.

Associated with the display card 36 and forming part of the package is a transparent plastic bubble 44 which may be made of any suitable material and formed in any known manner. The bubble illustrated herein is oblong in shape but it should be understood that the bubble configuration must be dictated by the size and shape of the article to be packaged. The bubble 44 is hat-shaped in cross section as viewed in FIG. 6 and comprises a top wall 46, side walls 48 and end walls 50 which define an article receiving chamber 52, and further includes a peripheral flange 54. In FIGS. 3 and 6 I have illustrated an article 56 disposed within the chamber 52.

After the display card 36 is formed the bubble enclosed article may be secured thereto as illustrated in FIGS. 3—6. The plastic bubble 44 containing the article to be packaged is placed upon the ramp portion 40 of the display card 36 and the flange 54 is slipped between the slightly spaced plies 14 and 16 into the side runs of the track 38. The bubble is advanced in the track until its lead end wall 50

abuts the end edge 20 of the opening 18. In this position three sides of the peripheral flange 54 are captured in the U-shaped track 38 while the fourth side overlies the two-ply locking tab 42. When assembling the package the article 56 may be manually retained within the chamber 52 until the bubble is advanced sufficiently far on the card 36 so that the article may overlie the ramp portion 40 thereof. Then the article containing bubble may be slid into the position illustrated in FIG. 4.

In order to prevent the bubble 44 from sliding out of the display card 36 it is merely necessary to manipulate the two-ply locking tab 42 by firmly pushing up from the back of the card in the direction normal to the plane of the card and by simultaneously slightly flexing the ramp portion 40 of the card to dispose the tab in locking position on top of flange 54 as shown in FIG. 5. There are no score lines to define the line of flexure, therefore, flexing of the card does not weaken it materially.

If it is desired to remove the article for inspection the lock may be disengaged. This may be accomplished by applying a firm pressure upon the two ply locking tab 42 to cause it to "pop" behind the flange 54. The bubble 44 may then be withdrawn by sliding it out along the track 38 and the article may be removed therefrom and inspected. These steps may be repeated as often as desired without damage to the package.

If it is desired that the display package be hung for display purposes, a bracket receiving hole 58 may be cut into the display card 36. As illustrated, the hole 58 is located at the end of the card remote from the two-ply locking tab 42. Thus, when the package is hung upon a bracket, the weight of the article will be supported by the tab. This is satisfactory for lightweight articles, however, if the articles are heavy the location of the hole 58 may be reversed to be adjacent the locking tab and the weight of the article will be supported by the end edge 20.

The assembly method described above is acceptable for relatively low volume packaging. For high volume production the card blanks 10 may be loaded on specially designed automatic equipment and the bubble 44 may be placed into the opening 18 in the front ply 14 with the article therein. The card blank may then be folded along the fold line 12 and sealed to itself. In this assembly method the locking tab 28 alone would initially capture the flange 54. The locking function of the display card 36 will not be impaired and the article may be removed by disengaging the locking tab 28 in the manner described above. Subsequent locking and unlocking is performed exactly as described first above.

Although the locking tab formed by the cut 30 in the back ply 16 occurs in the preferred form it is only essential that locking tab 28 in the front ply be employed. In the latter event the flexibility in the back ply may be relied on to permit flexing of the locking tab 28 or a portion of the back ply may be cut away directly behind the locking tab 28 to permit flexing thereof.

What is claimed is:

1. An improved blister package comprising: a two-ply display card having an opening defined in one ply, track means bounding a major portion of said opening and selectively repeatedly movable locking means extending into said opening; and a receptacle having an article re-

ceiving chamber of substantially the same configuration as said opening, and further having a peripheral flange; a major portion of which lies in said track means and a remaining free portion selectively underlies said selectively repeatedly movable locking means, whereby said receptacle is captured on said display card when said remaining portion underlies said movable locking means and may be removed from said display card when said remaining portion overlies said movable locking means and said receptacle may be selectively repeatedly captured on and removed from said display card.

2. The blister package as defined in claim 1 wherein said card plies are formed from a single sheet of material hingedly connected along one of the edges of said plies and are secured together along lines spaced from said opening by a distance greater than the width of said track means.

3. The blister package as defined in claim 1 wherein said receptacle is a thermoformed plastic material.

4. The blister package as defined in claim 1 wherein the portion of said display card lying between said opening and an end of said card forms a ramp for supporting an article to be packaged while the bubble is being slid along said track means.

5. The blister package as defined in claim 1 wherein said two card plies are secured together and said track means includes a portion of said card bounding said opening in which said two plies are not secured and between which the major portion of said flange is received.

6. The blister package as defined in claim 5 further including track entrance portions defined by outwardly flared sections of the side edges of said opening.

7. The blister package as defined in claim 6 wherein said selectively repeatedly movable locking means comprises a first locking tab portion in said one card ply partially extending into said opening and a second locking tab portion defined in said other card ply positioned to be in substantial alignment with said first locking tab portion.

8. The blister package as defined in claim 7 wherein said first and second locking tab portions are U-shaped.

9. The blister package as defined in claim 1 wherein said selectively repeatedly movable locking means comprises a first locking tab portion on said one card ply partially extending into said opening.

10. The blister package as defined in claim 9 wherein a second locking tab portion is defined in said other card ply positioned to be in substantial alignment with said first locking tab portion.

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