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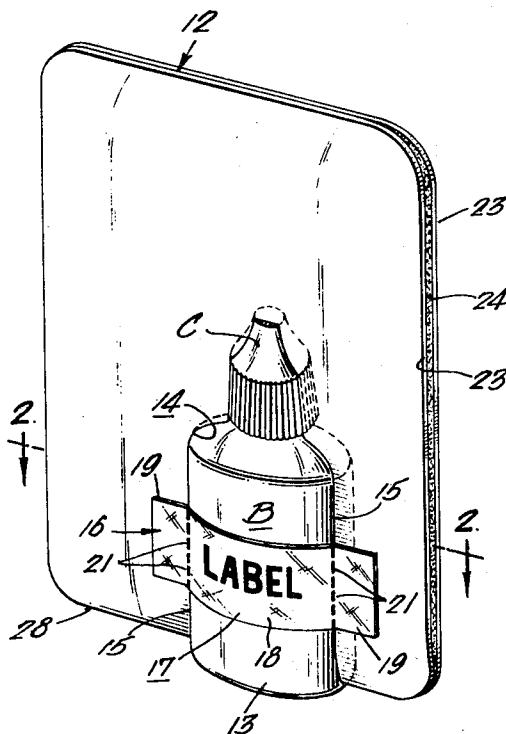
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53/30, 206/45.33

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B65d 5/52, B65d 65/16

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45.33, 45.19, 78(B), 80, 80(A), 46(FCM); 53/30;
248/152

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ABSTRACT: A package for displaying small articles such as bottles comprising a display board having two faces of stiff material enclosing a filler material of substantial thickness therebetween. The board has an open-faced pocket, opening into one edge and generally conforming to the outline of the article to be displayed, the width of the pocket being slightly less than the width of the article so that the article is frictionally engaged and retained between the sides of said pocket. A severable retainer is provided to retain the article in the pocket against inadvertent displacement. In one form the retainer comprises a label strip having its body portion secured to the article and constituting the label thereof and end portions secured to the display board and united to the body portion by a line of perforations coincident with the edge of the opening; and in another form the retainer comprises a wrapping of transparent film about the entire package including the display board and the article. The display package is particularly suited for bottles and may be assembled to the bottle as the final step of the bottling operation after capping.



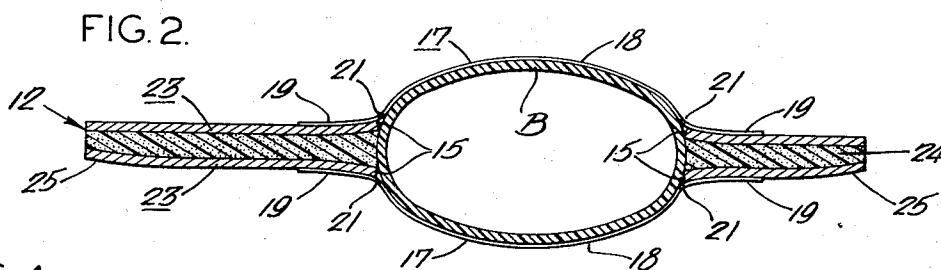
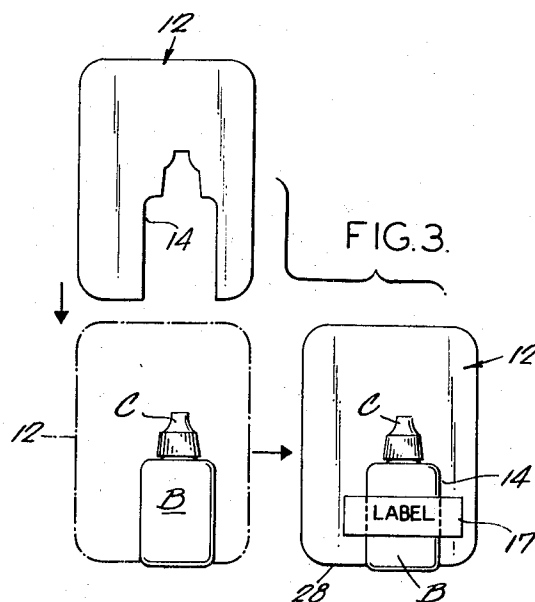
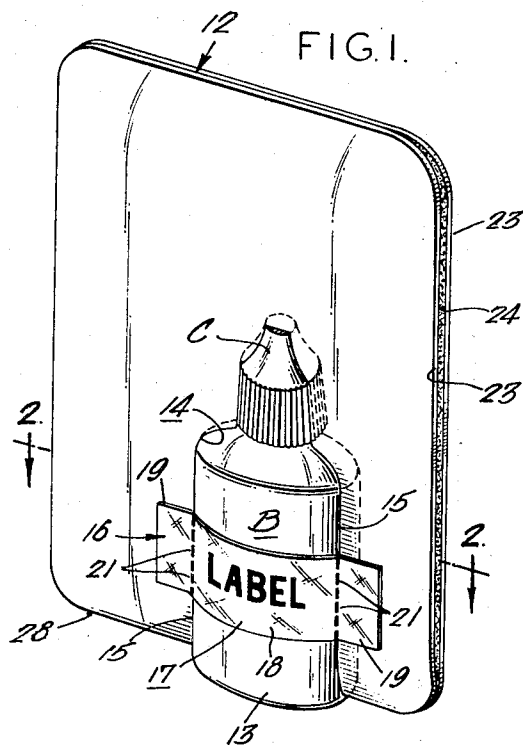


FIG. 4.

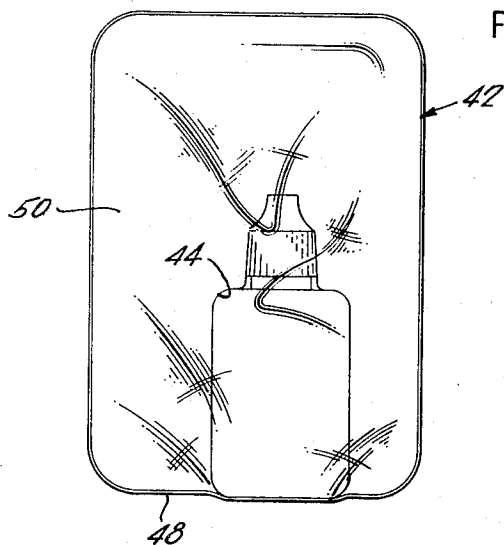
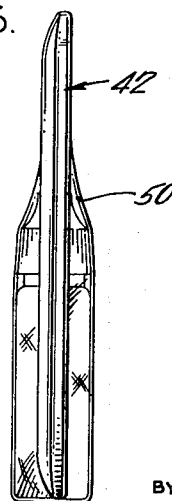


FIG. 5.



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DISPLAY PACKAGE

The present invention relates to a display package and has particular application to a package for displaying small articles of merchandise.

When merchandising small articles, particularly small containers which are adapted to be carried by the consumer in the purse or pocket, it is desirable to provide a package which is of sufficient size to permit the imprinting of an advertising message or other promotional material which will command the attention of the prospective purchaser when displayed on open shelves as in self-service markets. It is also advantageous to have the package of sufficient size that it is not overlooked when the customer is passing through the checkout counter of the self-service market. There are display packages currently available which accomplish these ends, but such packages are not entirely satisfactory either because of the high cost of the packaging operation or because of the fact that the package conceals the identifying information imprinted on the article which necessitates the duplicating of this information on the display package itself. With the foregoing in mind, the present invention provides a novel display package in which the article is mounted in a display board so that substantially the entire article is exposed for inspection by the prospective customer, permitting the use of the display board for promotional material.

The present invention also provides an improved display package which, while providing a large display area, does not add substantial bulk or weight to the packaged article, and permits the article to be displayed in upright position.

Another object of the present invention is to provide a package which may be assembled to the article as a final step in the assembly of the article, avoiding the necessity for transfer of the completed article to a separate packaging machine.

More particularly, the present invention provides a display package comprising a display board of substantial thickness having a cutout pocket opening through one edge of the board and conforming to the outline of the article, the width of the pocket being slightly smaller than the width of the article so as to frictionally engage the same and retain the article by friction therein, the package including supplemental means to retain the article in the pocket, the bottom of the article preferably being coplanar with the said one edge of the display board.

All of the objects of the invention are more fully set forth hereinafter with reference to the accompanying drawing wherein

FIG. 1 is a perspective view of a package embodying the present invention;

FIG. 2 is an enlarged sectional view taken on the line 2-2 of FIG. 1;

FIG. 3 is a diagrammatic view illustrating the assembly of the display board to the article to form the package;

FIG. 4 is a face view of another package embodying the present invention; and

FIG. 5 is a side view of the package shown in FIG. 4.

Referring now to the drawing, the package illustrated in FIGS. 1 to 3 comprises a display board 12 of substantial thickness adapted to be assembled with an article 13, in the present instance, a plastic bottle B having a cap C engaged thereon. The board 12 is formed with a cutout pocket 14 conforming in outline to the outline of the article 13 and having edge portions 15 adapted to frictionally engage opposite sides of the article 13.

A supplemental retainer 16 is provided to retain the article 13 within the pocket and prevent inadvertent displacement of the article from frictional engagement with the edge portions 15. In the present instance, the supplemental retaining means 16 comprises a tape or strip 17 positioned on each exposed surface of the display board and secured both to the display board and the article, for example, by adhesion. In the illustrated embodiment, the tape 17 includes a body portion 18 which may have suitable indicia impressed thereon to serve as

a label for the article 13. End tabs 19 are provided on opposite ends of the body portion 18 adapted to be secured to the display board 12. Preferably, the end tabs 19 are separable from the body portion 18 by a weakened line of juncture 21 formed in the present instance by a line of perforations. The weakened juncture line 21 is preferably disposed in registry with the edge portions 15 of the pocket so that when the body portion 18 is separated from the end tabs 19 by separating the weakened juncture line 21, the tabs 19 remain within the confines of the display board and the body portion remains within the confines of the article 13 to serve as its label. It is desirable to form the strip 17 of heat sealable material which may be permanently and effectively adhered to both the article and the display board by conventional heat-sealing techniques. In this manner, unauthorized removal of the strip is precluded, not only preventing any displacement of the article from the pocket but also thereby preventing unauthorized removal of the cap C from the bottle B by reason of the snug confinement of the article 13 in the pocket 14.

The display board 12 is preferably of sandwich construction having outer face layers 23 of relatively stiff paperboard and a core filler 24 of sufficient thickness to provide substantial thickness to the board. The board may be of the type described in U.S. Pat. No. 2,770,406 which comprises a core 24 of foamed polystyrene having secured thereto outer sheets of kraft paperboard. In the present instance, the board comprises a unicellular styrene foam core having a density of 4.0 pounds per cubic foot and the upper end of the outer layers consist of 42 pounds natural kraft board constructed so as to produce a total thickness of approximately one-fourth inches. The core is compressible without rupture and without returning to its original thickness and is thus able to take and hold a permanent compressive set.

In the formation of the package, the outer edges and the pocket of board 12 are preferably die cut to the desired shape. The outer periphery of the board is preferably cut with a straightedge blade which not only shears the edges of the board but also bevels the sheared edge by compressing the core material 24 to approximately one half its original thickness. In the manner, a beveled edge is provided about the outer periphery of the board as indicated at 25 in FIG. 2. The pocket 14 on the other hand, is formed by a die having a serrated-edge blade which cuts out the pocket 14 without compressing the edge portion so that the edge portion 15 is provided with substantial thickness. The substantial thickness of the interior side edges of the pocket provides a firm grip upon the article 13 by the display board. This grip is enhanced by making the width of the pocket 14 slightly undersized with respect to the article 13 so that when the article is placed into the pocket, the width of the article causes the layers 23 to splay outwardly to effect a resilient grip on the article therebetween. The foam filler 24 permits this separation of the faces and also is compressed by the article as it is inserted into the pocket so as to conform to the outer surface of the article between the interior edges 15 of the two face layers 23.

This package is especially suitable for articles having a base on which the articles are intended to stand, and it is preferred to form the pocket 14 with a depth corresponding to the length of the article so that when the article 13 is inserted into the pocket, the top of the article may bear against the end wall of the pocket and the bottom or base may rest coplanar with the lower outer edge 28 through which the pocket 14 opens. When assembled in this manner and when the article is retained in the pocket, the engagement of the top of the article against the end wall of the pocket precludes removal of the cap C from the bottle B and unauthorized removal of the contents from the container. The coplanar relationship of the edge 28 with the base of the article permits the display board to assist in maintaining the article upright on the display shelf.

The package of the present invention is especially suited for displaying articles which are widest at their base so that the article may be assembled with the display board by entering the article through the open end of the pocket. When packaging

bottles and the like which have a top closure, the display board may be assembled with the article at a final station in the capping machine, as indicated in FIG. 3. In a capping machine, the bottle is normally held upright by the conveyor for the application of the cap thereto. After the cap is applied and while the article is still held upright by the conveyor, the display board is forced downwardly over the bottle so that the bottle enters the pocket 14 through the open end, splaying the interior edges away from each other as shown in FIG. 2 and effecting a resilient grip on the sides of the article.

Where the article is of irregular shape, or where the article is not held upright by a capping machine, the display pocket may be cut out to conform to the outline of the article and the article may be introduced into the pocket through the face of the board. With the use of suitable jigs or the like, the article may be positioned in the pocket so that the interior edges of the layers resiliently grip the article and provide a firm support.

After the display board is assembled to the article, the retaining strips 17 are applied to span across the pocket and are secured to the display board and the article so as to retain the article in the pocket against inadvertent displacement. Depending upon the character of the strip, the strip is secured to the elements by adhesion or by heat sealing, as desired in any conventional manner. The strip may be provided with the perforations 21 either prior to its assembly to the article or as a final step in the application process. As pointed out above, the body 18 of the strip 17 may remain permanently secured to the bottle to serve as a label after the article is removed from the display board, as by tearing the strip along the perforations 21.

FIGS. 4 and 5 show a similar package wherein the retaining means consist of an overwrap. In this embodiment of the invention, the display board 42 is similar in all respects to the display board 12, having a pocket 44 at one end in outer edge 48 of the board. In this embodiment, the article is frictionally engaged in the pocket 44 in a manner similar to the engagement of the bottle B in the pocket 14 and the article is retained by a suitable retainer 50. In the present instance, the retainer 50 comprises an overwrap of clear plastic which envelops the assembly of the board and article and retains the article in place in the pocket against inadvertent displacement. Preferably the overwrap 50 comprises an envelope formed of a heat-shrinkable material which is placed over the assembly and is then subjected to heat treatment, for example, hot air, to cause the material to shrink around the assembly to form a substantially closed package.

The package may be modified to accommodate to various types of articles. For example, for articles of triangular cross section having a flat side, it may be desirable to form the pocket with an opening on only one face layer so that the flat side of the triangular cross section may bear against the uninterrupted face layer with the corners disposed between the layers so as to be frictionally retained in the pocket by the interior side edges of the pocket along the open face thereof.

While particular embodiments of the present invention have been herein illustrated and described, it is not intended to limit the invention to such disclosure but changes and modifications may be made therein and thereto within the scope of the following claims.

I claim:

1. A package including an article of predetermined width, and a display board having two face layers of stiff material and a filler disposing said faces in spaced relation, said filler comprising a foam core of substantial thickness which is compressible without rupture so as to conform to the outer surface of said article between said layers, said filler and each of said face layers being interrupted to provide interior edges defining an open-faced pocket in said board for receiving said article engaged between the interior side edges of said spaced face layers, said pocket terminating at one end in an end wall and being open at the other end through an outer edge of said

board, the interior side edges of said pocket conforming in contour to the sides of said article, the normal width of said pocket being less than the said predetermined width so that the filler along said interior side edges of said pocket frictionally engages the sides of said article, the filler between said face layers permitting said interior side edges to splay outwardly to effect a resilient grip on said article therebetween; and severable retaining means engaging said article and retaining it against displacement from said pocket through said open end, and said open face.

2. A package according to claim 1, wherein the aforesaid outer edge is substantially straight, and the length of said pocket corresponds to the length of said article so that when the top of said article is engaged against the end wall of said pocket, the bottom of said article is substantially coplanar with said outer edge.

3. A package according to claim 1, wherein the widest part of said pocket is at said open end along said outer edge to afford entry of said article into said pocket through said open end.

4. A package according to claim 1, wherein said retaining means comprises tape spanning across said pocket on opposite faces of said board the tape on each face of the board having a body portion secured to the article within said pocket and end portions secured to each face layers of the board on opposite sides of said pocket.

5. A display package according to claim 4, wherein said tape is provided with lines of perforation intermediate said body and end portions.

6. A package according to claim 1, wherein said retaining means comprises a tape spanning across said pocket and having a body portion secured to the article within said pocket and end portions secured to the interrupted face of said display board on opposite sides of said pocket.

7. A display package according to claim 6, wherein said tape is provided with lines of perforations intermediate said body portion and said end portions.

8. A package according to claim 1, wherein said retaining means comprises an overwrap enveloping said display board and article.

9. A display package according to claim 8, wherein said overwrap comprises a transparent envelope.

10. A package according to claim 9, wherein said envelope is of shrinkable material and is tightly engaged by shrinking over the display board and article.

11. A method of packaging articles comprising the steps of holding the article upright, providing a display board having two face layers united with a foam core filler of substantial thickness which is compressible without rupture intermediate said face layers, each of said face layers and said filler being interrupted to provide interior edges defining an open-faced pocket having side edges of substantial thickness conforming to the outline of said article, displacing said board toward said article and entering said article into said pocket so as to cause the edges of said face layers to splay outwardly and the filler to be compressed whereby the edges and filler frictionally engage the sides of said article, and applying a retaining means to said package to engage said article and said package and retain said article in said pocket against inadvertent displacement.

12. A method according to claim 11, including the step of securing said retaining means to both said article and said display board to thereby anchor said article in said pocket.

13. A method according to claim 12, wherein said retaining means comprises a tape having a body portion and end portions, said securing step operating to secure said body portion to said article and said end portions to said display board, and including the further step of providing perforations in said tape intermediate said body portion and said end portions.

14. A method according to claim 11, wherein said pocket is open at one end through a free outer edge of the board, and said article is entered into said pocket through said open end.