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J. L. AMES ET AL
PHARMACEUTICAL PACKAGE

3,437,194

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FIG. 1

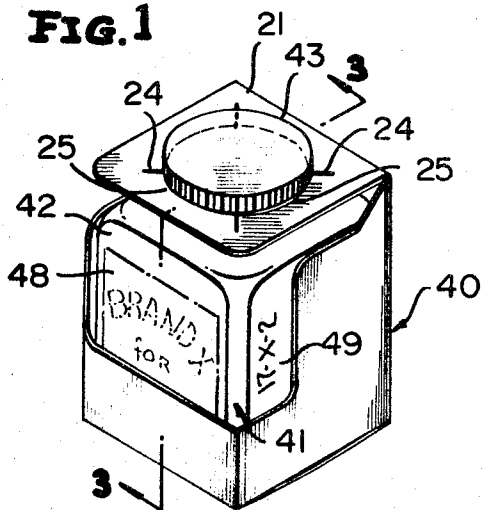


FIG. 2

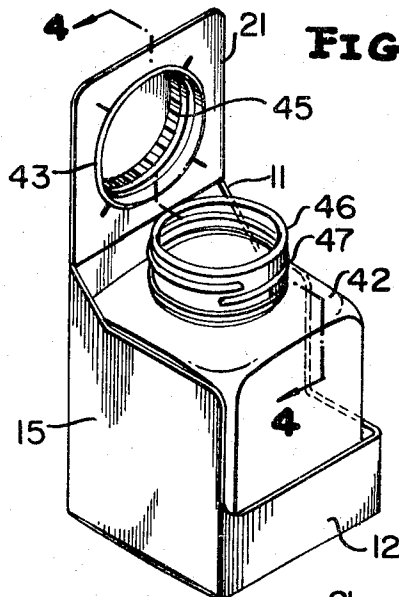


FIG. 3

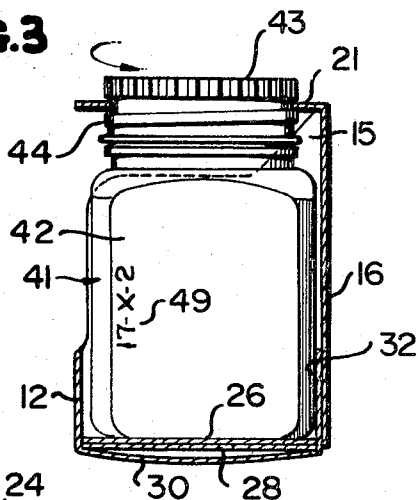


FIG. 4

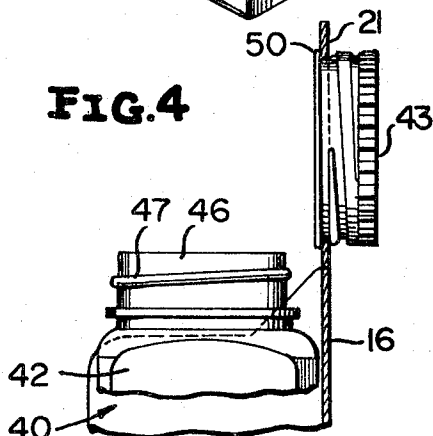
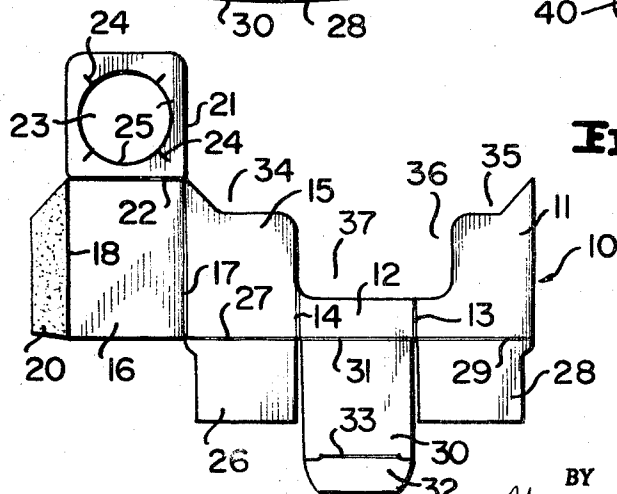


FIG. 5



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PHARMACEUTICAL PACKAGE

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12 Claims

ABSTRACT OF THE DISCLOSURE

This invention relates in general to new and useful improvements in package constructions, and more specifically to a novel pharmaceutical package. The package includes a carton having a base portion for receiving a container carrying a removable closure which is receivingly interlocked in an opening of a cover panel of the carton. Thus, upon the removal of the closure from the container the closure is at all times retained in assembled relationship with the carton by means of the interlocking engagement thereof with the cover panel.

At the present time pharmaceuticals are packaged in containers which, in turn, are packaged in cartons. Normally the lot and control number of the pharmaceutical is printed on the carton. As a result, the druggist must either register in the pharmaceutical or he must constantly replace the container within the carton after dispensing a portion of the contents so that the two will not be separated. It is the primary object of this invention to provide a novel carton and container assembly which forms a package wherein there is no need whatsoever for the container to be removed from the carton in the dispensing of the contents thereof and at the same time the lot and control numbers may be imprinted upon the container or a label affixed thereto with the same being readily visible while the container is within the carton.

Another problem frequently encountered by druggists is the misplacing or losing of the cap or closure for the container. In view of this, it is another object of this invention to provide a pharmaceutical package wherein the container remains within the associated carton at all times and the cover for the container remains attached to the carton in position for immediate return to its container closing position at all times so that not only is misplacing of the cover prevented, but also the accidental dropping thereof is prevented.

Another object of this invention is to provide a novel package wherein a container having a cover is positioned within a carton and wherein the cover is so attached to the carton whereby as it is released from the container and moved to an out-of-the-way position, it is automatically inverted whereby it is possible to first invert the container and place a portion of the contents of the container within the cover and thereafter remove the cover from the container and in the same motion restore the upright position of the container with the cover being utilized for the purpose of dispensing individual ones of the contents of the container.

Another object of this invention is to provide a carton which may be readily applied to a container on existing automatic production equipment.

A further object of this invention is to provide a novel carton which requires less material than prior similar cartons and at the same time has not only all of the advantages of the prior cartons, but additional advantages.

With the above and other objects in view that will hereinafter appear, the nature of the invention will be more clearly understood by reference to the following detailed description, the appended claims and the several views illustrated in the accompanying drawing:

In the drawing:

FIGURE 1 is a front perspective view of a package formed in accordance with this invention.

FIGURE 2 is a slightly rotated front perspective view of the package of FIGURE 1 in its open condition.

FIGURE 3 is a vertical sectional view taken along the line 3—3 of FIGURE 1 and shows the constructional details of the carton.

FIGURE 4 is a fragmentary vertical sectional view taken along the line 4—4 of FIGURE 2 and shows the manner in which the container cover or cap is retained by the carton cover panel.

FIGURE 5 is a plan view on a reduced scale of the blank from which the carton is formed.

Referring now to the drawings in detail, it will be seen that there is illustrated in FIGURE 5 a carton blank which is generally referred to by the numeral 10. The carton blank 10 is of a one-piece construction and is preferably formed of a suitable paperboard material.

The carton blank 10 includes a central body portion formed of a side panel 11 which is hingedly connected to a front panel 12 by means of a fold line 13. A fold line 14 connects to the front panel 12 a second side panel 15. A rear panel 16 is connected to the side panel 15 by means of a fold line 17. A fourth fold line 18 connects to the rear panel 16 a connecting panel or flap 20 on which suitable adhesive is applied for adhesively connecting the flap 20 to the inner surface of the side panel 11. It is to be noted that the fold lines 13, 14, 17 and 18 are all parallel to one another.

Along the upper edge of the rear panel 16 there is hingedly connected a cover panel 21, the cover panel being connected to the rear panel along a fold line 22 which extends transversely to the fold lines 17 and 18. The cover panel 21 is generally rectangular in outline and is entirely free of any connections except for that to the rear panel 16 along the fold line 22.

The cover panel 21 has a circular opening 23 formed therein for the purpose of receiving a closure or lid of a bottle. In order to facilitate the forming of an interlock between the lid and the cover panel 21, the cover panel 21 is provided with a plurality of radiating cuts 24 which combine to define circumferentially spaced locking flaps 25. The flaps 25 are deflectable to permit the snap engagement of the container lid through the opening 23.

A bottom closure flap 26 is hingedly connected to the side panel 15 along a fold line 27. A second bottom closure flap 28 is hingedly connected to the lower edge of the side panel 11 along a fold line 29. A bottom panel 30 is hingedly connected to the lower edge of the front panel 12 along a fold line 31. The fold lines 27, 29 and 31 are all in alignment and are transversely of the fold lines 13 and 14. A locking flap 32 is connected to the bottom panel 30 remote from the fold line 31 along a fold line 33 which is parallel to the fold line 31.

It is to be noted that the upper portion of the side panel 15 is cut away as at 34. The upper portion of the side panel 11 is similarly cut away as at 35. In addition, the edge of the side panel 11 adjacent the fold line 13 is cut away as at 36. In addition, the major portion of the front panel 12 is cut away as at 37.

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It will be readily apparent from FIGURE 5 that although the locking flap 32 extends from that edge of the bottom panel 30 disposed remote from the front panel 12, no additional material is required for the locking flap 32. When the carton blanks 10 are formed immediately adjacent one another with the lower edge of a rear panel 16 of one carton blank being immediately adjacent the cover panel of the next adjacent carton blank, ample material is available for the locking flap 32 due to the cutting away of the front panel 12.

It will be readily apparent from the drawing that the body portion of the carton, which carton is generally referred to by the numeral 40, may be readily formed after the flap 20 has been secured to the inner surface of the side panel 11. The closure flaps 26 and 28 may then be folded inwardly followed by the folding of the bottom flap 30 to its bottom forming position and the folding of the locking flap 32 behind the flaps 26 and 28 in the manner generally shown in FIGURE 3.

After the carton 40 has been so formed, a container may be readily positioned therein. In the preferred embodiment of the invention, the container is generally referred to by the numeral 41 and is preferably in the form of a bottle 42 having a screw type closure cap 43. The closure cap 43 is provided with external projections 44 in the forming of internal threads 45 (FIGURE 2). The bottle 42 has a neck 46 with external threads 47.

It is to be understood that the container 41 will have suitable indicia applied thereto. The indicia may be applied to a label 48 which, in turn, is secured to the bottle 42. On the other hand, the bottle 42 may be formed of a suitable material on which it is possible to print. Either applied on a suitable label, such as the label 48, or imprinted directly upon the bottle 42 will not only be the general identification of the product container within the bottle 42, but in the case of pharmaceuticals, also the lot and control number, which number is generally identified by the numeral 49 in FIGURE 1.

It is to be noted that after the container 41 has been positioned within the carton 40, the label 48 is readily readable through the open front of the carton 40. Also, the lot and control number 49 is readily readable through the opening in the side of the carton 40. Thus, if desired, the imprinting on the carton 40 may be of the universal type and not restricted to the specific product packaged within the container 41. Furthermore, it is not necessary to separately print the lot and control number on the carton inasmuch as it is readily visible on the container. This greatly facilitates the packaging process.

It will be noted that after the container 41 has been placed in the carton 40, it is merely necessary to press the cover panel 21 down over the lid 43. Due to the resiliency of the flaps 25, the flaps will first open to permit the passage of the upper part of the lid and thereafter snap beneath the projections on the external surface of the lid 43.

Attention is directed to the respective relationships of the lid 43 and the cover panel 21 in FIGURES 3 and 4. It will be seen that as the lid 43 is unscrewed from the bottle 42, it will be fed up into the opening 23 in the cover panel 21 so as to not hinder the removal thereof from the bottle 42. However, the outward movement of the lid 43 will be limited by the usual peripheral flange 50 thereon. Because the flange 50 is substantially flush with the cover panel 21, it will be seen that in the case of pills and the like the pharmaceutical product may be readily dispensed by first dumping them into the lid 43 and then taking them from the lid after the cover panel 21 has been folded to a horizontal position. When the lid 43 is again applied to the bottle 42, it will thread down relative to the cover panel 21 to assume its original position.

It is obvious that the lid 43 will never be dropped or misplaced in that it remains permanently attached to the

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carton 40. Also, because the carton and the container never become separated, any insert placed within the carton containing information is never removed and remains available. Other advantages of the package will become apparent in the use thereof.

We claim:

1. A carton particularly adapted for use in combination with a container having a replaceable closure, said carton having a base portion for snugly receiving the container and a hinged cover panel, said cover panel having an opening for receiving the container closure, and means adjacent said cover panel opening for forming an interlock with the container closure whereby a container closure when removed from the associated container will remain attached to the cover panel and adjacent the associated container.

2. The carton of claim 1 wherein said interlock forming means includes cuts in said cover panel defining locking flaps.

3. The carton of claim 1 wherein at least a front and one side panel of said base portion have the upper portion thereof removed to make readily available indicia on a container positioned in said base portion.

4. The carton of claim 1 wherein at least a front and one side panel of said base portion have the upper portion thereof removed to make readily available indicia on a container positioner in said base portion and a bottom panel having a locking flap, said bottom panel being hingedly secured to said front panel.

5. The carton of claim 1 wherein said cover panel is devoid of any connection with said base portion except for said hinged connection.

6. A carton blank comprising a body portion including a rear panel, a first side panel, a front panel and a second side panel hingedly connected together in that order, a cover panel hingedly connected to said rear panel and projecting therefrom as an extension thereof in one direction, a bottom panel hingedly connected to said front panel and projecting therefrom as an extension thereof in an opposite direction, said bottom panel having a locking flap hingedly connected thereto remote from said front panel, said front panel being foreshortened remote from said bottom panel by an amount at least equal to the width of said locking flap, said cover panel having an opening for receiving a container closure, and means adjacent said cover panel opening for forming an interlock with a container closure for maintaining the container closure attached to the cover panel in both attached and removed positions of the container closure relative to an associated container.

7. The carton blank of claim 6 wherein said cover panel is entirely free except for its connection to said rear panel and has container interlocking means.

8. A package comprising a carton and a container, said carton having a base portion forming a receptacle for said container, said container having a removable lid, said carton having a cover panel, and means for positively interlockingly securing said lid to said cover panel in both open and closed positions of said cover panel relative to said base portion, and in both attached and removed positions of said lid relative to said container.

9. The package of claim 8 wherein said lid is of the screw thread type and is rotatable within said cover panel.

10. The package of claim 8 wherein said lid is of the screw thread type and is rotatable within said cover panel with external projections of said lid screw threads positioning said lid relative to said cover panel.

11. The package of claim 8 wherein upper parts of said base portion are omitted and indicia appearing on said container are readily visible at all times.

12. A carton particularly adapted for use in combination with a container having a receptacle closure, said carton being of a one-piece construction and having a base portion for snugly receiving a container, said carton further including an integral hinged cover panel, and

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said cover panel having means for securing a removable closure thereto whereby upon the removal of the closure from an associated container the closure will remain secured to and carried by the cover panel.

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