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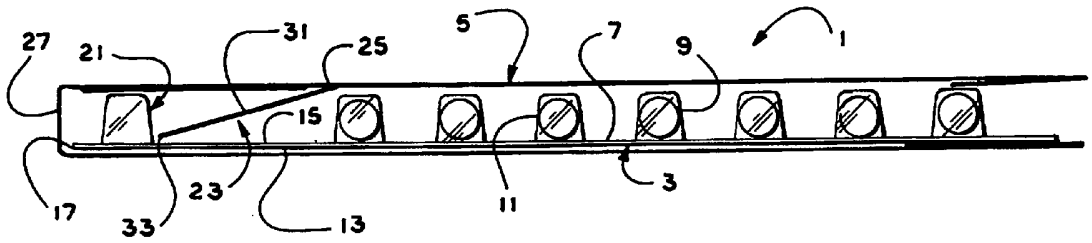
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(54) Title: BLISTER AND PACKAGE SYSTEM



(57) Abstract: A blister and package system made of a blister card and an outer package with unique interacting locking mechanisms. The blister card is inserted in the outer package and locks immediately without having to further process the outer package or the blister card. The user is able to expose the blisters from the outer package by disengaging the lock. The blister card includes a formable, pliable sheet material, into which one or more individual cavities or blisters are formed. The separated cavities are loaded with product and sealed with one or more layers of puncturable or tearable sheet material, such as aluminum foil. The blister card contains a stop, which may be one or more additional cavities that form an interference mechanism, or an interference blister cavity. The interference blister is trapped by a locking mechanism and stopped by a catch flap included in the outer package.

WO 2005/068304 A2

BLISTER AND PACKAGE SYSTEM

This application claims the benefit of U.S. Provisional Patent Application No. 60/534,401, filed January 7, 2004 and U.S. Provisional Patent Application No. 60/570,494, filed May 13, 2004.

BACKGROUND OF THE INVENTION

There are many examples of packages with features meant to provide some level of child resistance to access to blister cards and products therein. Devices are particularly needed in the OTC and physician sample markets.

Examples include special peel-away backings on the blister, attaching the blister to some other carrier (such as MeadWestvaco's SUREPAK product), sealing the blister between additional layers of material, or some combination of, these (such as MeadWestvaco's DOSEPAK product).

Needs exist for additional package for blister cards in a manner that provides some level of child resistance without preventing adults from gaining access to the blister cards and their contents.

Needs exist for improved methods of containing blister packs where the blister is easily accessible, but not readily separated from the outer package.

SUMMARY OF THE INVENTION

The present invention may be used for any products that are used singly or in small quantities at one time, for example, but not limited to, fasteners, needles and threads, foods and

treats. This invention has two primary components, a blister card and an outer package. The blister card is similar to typical blisters available on the market and can be made from any materials known to the art for blister package. These materials normally include a pliable sheet material, usually plastic, into which one or more cavities are formed. The cavities are loaded with products and are sealed with one or more layers of sheet material, such as aluminum.

In one preferred form, the device is similar to those described later, but does not have any provisions for child resistance. The blister card slides into or is placed inside of an outer protective package, where both the blister card and outer package have interference mechanisms that prevent the blister card from being separated from the outer package. This feature may be used as an option in the child resistant package. The interaction of the outer package structure with the structure of the blister card is novel and unique, with or without the child resistant locking feature.

The blister card contains one or more additional cavities that form an interference mechanism or interference blister. The interference blister cavity does not hold product. A catch flap that is included in the outer package traps the blister cavity. The catch flap in the outer package abuts the interference blister, thus, preventing the blister card from being removed from the outer package. The interference blister is located at either end or both ends of the blister card. The blister card can be formed as one continuous, self-contained entity or can be assembled from a combination of several individual components, such as separate blisters, a one or two-piece carrier card and an interference blister.

The outer package is formed, folded or assembled from one or more pieces of material. The material or combination of materials used is of any type that meets the functional needs of the outer package, typically paper or plastic. The shape of the outer package would typically

mimic that of the rectangular blister card, but could vary so long as there is still a slot into which the blister card is concealed. The outer package contains a catch flap that abuts against the interference blister, preventing the blister card from sliding out of the package. One package employs a catch flap at both ends of the outer package, and the blister card also has an interference blister at either end. That allows the user to pull the blister card out of the package from either end.

Both the blister card and the outer package have unique locking mechanisms that interact with each other. The blister card is inserted or placed in the outer package and locks immediately without having to add any further processing to the outer package or to the blister card. In one embodiment, exposing the blisters from a child resistant outer package requires disengaging the lock.

The blister card in the child resistant embodiment also contains a stop, which may be one or more additional cavities that form an interference mechanism, or an interference blister cavity. The interference blister cavity does not hold product. The interference blister is trapped by a locking mechanism and stopped by a catch flap included in the outer package. The locking mechanism in the outer package prevents the blister card from being exposed from the outer package unless a release mechanism is activated. The interference blister is located near one end of the blister card, typically the end that corresponds to the sealed end of the outer package. The interference blister is near a blister card's inner end, which is the trailing end of the blister card as it is being exposed from the outer package.

The child resistant outer package can be formed, folded, or assembled from one or more pieces of material. The material or combination of materials used can be of any type that meets the functional needs of the outer package. For example, a paperboard, box or a coated paper or

plastic sleeve with a locking insert may satisfy the requirements. The shape of the outer package preferably mimics that of the blister card. The outer package shape can vary so long as there is a slot into which the blister card can be concealed. The outer package contains an internal member, the locking mechanism, that abuts the stop or interference blister, preventing the blister card from unintentionally sliding outward through the open end of the package. The user must activate a release mechanism in order to slide the blister card outward through the package. Preferably, an additional member, the catch flap, is extended inward from the open end of the outer package to engage the interference blister and to prevent the blister card from being separated from the outer package.

In preferred examples, one continuous blank of paperboard is cut, scored, folded and glued to create a rectangular package, mimicking the general shape of the blister card. The package contains a front panel, two side panels, a back panel, an elongated internal panel, a number of functional-locking panels, and closure panels at one end of the package. The elongated internal panel is approximately equal in dimension to the width of the front panel, but is not so long as to interfere with the folding scores.

The internal panel has an additional series of panels attached to the end closest to the package end closure flaps. The first panel is attached by a score and is folded 180-degrees, unprinted side-to-unprinted side and later is adhered to the internal panel by any means known. The adhered panel has another panel extended from it that is folded approximately 180-degrees, printed side-to-printed side, but is not adhered. This panel becomes the locking and release mechanism for the blister card in the package. The first adhered panel allows the locking panel to be positioned appropriately with respect to the stop or interference blister and controls the angle of the locking panel. The folding sequence and the memory in the paperboard provides the

needed spring back for the locking and release mechanism. Different materials and structures may provide the new springing and locking.

The locking panel has an extension formed by a cut extending into the attached panel or has an aperture cut that extends through both the attached panel and the locking panel. This cut or aperture extends through the score between the locking panel and the attached panel. The interrupted score between the adhered panel and the locking panel on both sides of the extension acts as the pivot for the locking panel. The extension creates the lever for the release mechanism. When the lever is activated, the locking panel rotates about the score pivot point, and the locking panel is moved out of the way of the interference blister.

The internal panel also contains an aperture or one cut or a series of cuts that corresponds in location to the aperture or cuts on the locking panel. Likewise, the back panel contains an aperture or one cut or a series of cuts that correspond to those on the internal panel and the locking panel. The internal panel is folded 90-degrees to one side panel, and the back panel is folded 90-degrees to the other side panel. The back panel is adhered to the internal panel, such that the panels are aligned with each other and the apertures, cuts and scores are aligned with the locking mechanism. The aligned cuts and apertures allow the user to activate the lever/lock release mechanism when the package is formed.

Closure flaps are extended from end edges on the back and front panels or side panels.

Additional panels and features are extended from available raw edges or surfaces to create informational literature pockets, visual design features, and the like.

One panel feature that is added to the packages is a catch flap. The catch flap is attached to the internal panel near the open end of the package and extends into the package. The catch flap is long enough to ride on top of the blisters without getting caught on any of them, and yet

the catch flap will still catch the interference blister. This prevents the user from separating the blister card and the outer package, thus increasing the likelihood that pushing the blister card back within the package following each use of the product will reactivate the child resistant feature.

The catch flap could also be made such that it would lie flat under the blister card, coinciding with the layered side of the blister card. With the flap in this orientation the interference blister would be designed such that the catch flap would extend up into the cavity of that blister.

Other examples include additional panels that can be used as fold over flaps for improved appearance, closure flaps, or tuck in flaps at the open end. A panel that is included for aesthetics purposes extends from the front panel and is folded inward 180-degrees unprinted side-to-unprinted side and adhered to an inside of the front panel. That effectively removes a raw edge, giving a more pleasing and finished look to the package.

A modified blister card has a fold-over paper card carrier aligned opposite apertures. One group of apertures on one side of the fold-over and card carrier receives blisters from a blister card. The opposite group of apertures on the other side of the carrier provides access to foil covering the back of each blister for tearing the foil and removing the product. The blister card carrier has a stop formed at one end spaced from the blister and foil openings.

In a preferred form, the stop is a large hollow blister with a flange that fits between the sides of the carrier. The large blister fits through a large hole on the first side of the carrier and is aligned with a second large hole on the other side of the carrier so that a releasable lock in the inner end of the outer package and a catch flap at the open end of the package may engage the large stop blister.

The carrier is folded over a conventional blister card, for example having twelve blisters in two rows of six, and slid into the outer package. The opposite sides of the carrier may be glued or may be held together by insertion in the outer package.

These and further and other objects and features of the invention are apparent in the disclosure, which includes the above and ongoing written specification, with the drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 shows a blister sheet ready for sliding into a package.

Figure 2 is a cross-sectional view of the blister pack held in the package by a locking flap.

Figure 3 shows the blister pack partially slide out of the package after pushing inward on a release lever to lift the locking flap.

Figure 4 shows a catch flap in engagement with the locking blister.

Figure 5 shows a one-piece package blank.

Figure 6 shows the locking mechanism and catch flap folded inward 180-degrees on the inner panel.

Figure 7 shows the locking flap folded back 180-degrees with the lever extended before the adhered panel is secured to the inner panel.

Figure 8 shows the inner panel folded inward 180-degrees.

Figure 9 shows one side panel and the back panel folded inward 180-degrees to align with and adhere to the inner panel.

Figure 10 shows another blank with an aesthetic panel for providing a smooth edge on the open end of the front panel.

Figure 11 shows a similar outer package blank with a pull-up lock release.

Figure 12 shows a similar blank with a push down lock release and related apertures, cuts and scores.

Figure 13 shows a similar blank with a literature-receiving flap.

Figure 14 shows a box with a literature-receiving flap.

Figure 15 shows the blister card with a hollow interference blister.

Figure 16 shows components of an alternate blister card and carrier.

Figure 17 shows an assembly of the alternate blister card carrier.

Figure 18 shows a card for forming an assembled blister.

Figure 19 shows a blank for forming a base package.

Figure 20 is an illustration of a blank for forming a base package with additional panels for information as well as aesthetics.

Figure 21 a view of a finished package with blisters partially removed from the package.

Figure 22 shows a package and blister card side by side.

Figure 23 shows a perspective view of a combined blister card and package.

Figure 24 shows an assembled blister.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to Figures 1-4, a blister package is generally indicated by the numeral 1. Two primary components are a blister card 3 and an outer package 5.

The blister card is similar to typical blisters available on the market and can be made from any materials known to the art for blister package. These materials normally include a pliable sheet material 7, usually plastic, in which one or more cavities or blisters 9 are formed.

The cavities are loaded doses of products 11 and are sealed with one or more layers of sheet material, such as aluminum foil 13. The aluminum foil is punched, cut or torn to remove one capsule at a time.

The blister card 3 has blank spaces 15 without capsules and has near one end 17 one or more additional blister cavities 19 that form an interference blister 21. This interference blister cavity does not hold product; it is trapped by the locking mechanism included in the outer package 5. The locking mechanism in the outer package prevents the blister card from being slid outward from the outer package unless the release mechanism 25 is activated.

The interference blister 21 is located near one end 17 of the blister card 3 that corresponds to the sealed end 27 of the outer package 5.

The outer package 5 contains the internal locking mechanism 23 that abuts the interference blister 21, preventing the blister card 3 from sliding outward in the package 5. The user must activate a release mechanism 25 in order to slide the blister card 3 outward from the package 3. An additional catch flap member 41 extends from the open end 42 of the outer package 5 to prevent the blister card from being separated from the outer package.

As shown in Figures 2-4, the package 5 has a locking mechanism 23. A locking flap 31 has an end 33 that engages interference blister 21 and holds the blister pack 3 inside the package 5. An adhered panel 37 has a fold 39 which supports flap 31. The resilience of the adhered panel 37 and the locking flap 35 around the fold 39 holds the end 33 of the flap 31 downward until the locking flap is intentionally lifted.

Figure 3 shows the lifting of the locking flap 31 and engaging 33 by pushing downward on the release mechanism 25 on the outer package. The release mechanism pushes downward on the lever 35, which is an extension of locking flap 31, rotating flap 31 around the resilient fold 39

and lifting the end 33 of the flap above the interference blister 21. That allows the blister pack 3 to be slid outward in the package in the direction 40.

As shown in Figure 4, once the mechanism 25 is released the locking flap 31 springs downward by the memory resilience of the fold 39. A catch flap 41 at the open end 42 of outer package 5 has an end 43 that is held above the adjacent blister cavities 9, because the length of the flap 41 exceeds the spacing of the blister cavities. When the blank spaces 15 of the blister pack 3 reach the flap 41, the catch flap drops under the spring pressure of the fold 49 and the end 43 engages the interference blister 21, preventing complete removal of the blister pack 3 from the outer package 5.

After one capsule has been removed from the blister card by puncturing the foil covering the cavity in which that capsule is stored, the blister card 3 is pushed back into the package. The blisters 9 lift flaps 41 and 31 until flap 31 drops into place with the edge 33 adjacent the interference blister 21, returning the package to the condition shown in Figure 2.

As shown in Figures 5-13, the outer package 5 can be formed, folded, or assembled from one piece 51 of a foldable, relatively rigid sheet material. The material (or combination of materials) used can be of any type that meets the functional needs of the outer package, preferably paperboard, and forms a slot 52 into which the blister card 3 can be concealed.

One continuous blank 51 of paperboard is cut 53, scored 55, and folded 57 to create a rectangular package 51 in the general shape of the blister card 3. The package 51 contains a front panel 63, a back panel 65, two side panels 67, 69, an elongated internal panel 71, functional-locking panels 30, 41, and closure panels 77, 79 at one end of the package. The elongated internal panel 71 is approximately equal in dimension to the width of the front panel 63, but is not so long as to interfere with the folding scores 55. Internal panel 71 has a series of

panels 30 attached to the end closest to the closure flaps 77, 79. The first panel 37 is attached by a score 83 and is folded 180-degrees, unprinted side-to-unprinted side and later is adhered to the internal panel 71. This adhered panel 37 has locking panel flap 31 extended from it that is folded approximately 180-degrees, printed side-to-printed side, but is not adhered. This panel 31 becomes the locking and release mechanism 23 for the package. The first attached panel 37 allows the locking panel flap 31 to be positioned appropriately with respect to the interference blister 21 at the angle of the locking panel shown in Figure 2. The folding sequence and the memory in the paperboard provide the needed spring back for the locking 23 and release 25 mechanisms. The locking panel flap 31 has a cut 83 extending into the attached panel 81. The cut 83 is located between the folds 39 that join the locking panel flap 31 to the attached panel 81.

When the panel 37 is adhered to the inside of inner panel 71, the folds 39 act as the pivot and create the lever 35 for the release mechanism 25. When the lever 35 is activated, the locking panel flap 31 rotates about the fold pivots 39 and is moved out of the way of the interference blister 21, as shown in Figure 2. The internal panel 71 also contains an aperture 73 that corresponds in location to the lever 35 on the locking panel flap 31. Likewise, the back panel 65 contains a cut 75 that forms release lever 25 in a position that corresponds to the aperture 73 on the internal panel and the lever 35 on the locking panel flap 31.

As shown in Figures 7-9, in assembling the outer package, the locking panel 31 is bent around folds 39, which extends the lever 35. Then the adhered panel 37 is adhered to the inside of the internal panel. The internal panel 71 is folded 180-degrees, and then the back panel 63 is folded 180-degrees and adhered to the internal panel, such that the panels are aligned with each other, as shown in Figures 7 and 8, and the aperture cuts 73, 75 and folds 39 are aligned with the locking 23 and release mechanisms 25. These cuts and apertures allow the user to activate the

lever/lock release mechanism when the package is formed.

Additional panel features are extended from available raw edges or surfaces to create closure flaps, informational literature pockets, visual design features, and the like. One panel feature that is added to the package is a catch flap 41.

As shown in Figures 5-10, the catch flap 41 is attached to the internal panel 71 near open end 42 of the package 5 and extends into the package. The catch flap 41 is long enough to ride on top of the blisters 9 without getting caught on any of them, as shown in Figures 2 and 3, and yet will still catch the interference blister 21, as shown in Figure 4. That prevents the user from separating the blister card 3 and the outer package 5, thus increasing the likelihood that sliding the blister card 3 back into the outer package 5 following each use of the product will reactivate the child resistant feature.

As shown in Figure 11, a catch flap 91 is made such that it lies flat under the blister card 3, coinciding with the foil 13 layered side of the blister card. With the flap in this orientation the interference blister 21 is hollow and without a backing, such that the catch flap 91 extends up into the cavity of the blister 21.

Figure 11 shows a modified locking panel flap 92 that has a finger hole 95 rather than a lever. To release the blister card for sliding in the package, a user inserts a finger through aligned holes 99, 73, 97 and 95 to lift locking panel flap 92 out of engagement with the interference blister 21 to release the blister card 3.

Other examples include additional panels that can be used as fold over flaps for improved appearance, closure flaps, or tuck in flaps.

Tuck-in flap 101 is shown connected to the open end 42 of front panel 63 in Figures 12 and 13. Also shown joined to back panel 65 are panels 102, 104 and glue panel 106 which

become a literature slot flap 108.

Figures 5-10 illustrate a panel 62 that has been included for aesthetics purposes. This aesthetic panel extends from the open end 42 of the front panel 63 and is folded 180-degrees unprinted side-to-unprinted side and adhered to the inside of front panel 63. That effectively removes a raw edge, giving a more pleasing and finished look to the package.

Figure 15 shows a blister card 3 with hollow interference blisters 21 for engagement by a catch flap such as shown in Figure 11.

Figure 16 shows an alternate blister card 103 formed from a large card 105 with a central fold 107 and opposite sides 109, 111 with similar cutouts 113, 115. Cutouts 113 on side 109 receive blisters 117 from standard twelve-dose blister card 119. Cutouts 115 provide access to the foil on the back of card 119 for piercing the foil to remove individual doses. A large opening 121 near an inner end 123 of side 109 receives a hollow upper portion 127 of a stop 125. A base 129 of stop 125 is secured between the sides 109 and 111 when they are joined together.

Figure 17 shows the assembly of card 119 and stop 125 into apertures in side 109 of the blister card 103 before side 111 is folded over side 109. The sides may be glued with a strip of adhesive near the remote edges or held together by insertion in the outer package 5.

In an alternate form, an aperture may be provided in side 111 opposite the hollow portion 127 to allow use with a catch flap such as shown in Figure 11.

Referring to Figures 18-24, the device is similar to those described previously, but does not have any provisions for child resistance. This invention is primarily for blister packed products. This invention has two primary components, a blister card and an outer package.

Figure 18 shows a card 201 for forming an assembled blister. The card 201 has two halves 203, 205 connected by a hinge 207 that may be a score in the paperboard or a similar

device. The first half 203 has openings 209 for passing the contents of a blister 211. One or more blisters are located in openings 211 in the second half 205.

Blisters inserted in the blister card 201 are similar to typical blisters available on the market and can be made from any materials known to the art for blister package. These materials normally include a pliable sheet material, usually plastic, into which one or more cavities are formed. The cavities are loaded with doses of product and are sealed with one or more layers of sheet material, such as aluminum foil. The blisters may be joined in a sheet or may be separate with flanges that are held between the card halves 203, 205 when glued and folded. The blister card 201 can be formed as one continuous, self-contained entity or can be assembled from a combination of several individual components, such as separate blisters, a one or two-piece carrier card and an interference blister.

The blister card 201 contains one or more additional cavities 213 that form an interference mechanism or hold an interference blister. The interference blister in cavity 213 does not hold products.

As shown in Figure 19, a catch flap 217 is folded inward, but not glued, when forming an outer package from the outer package 215. Catch flap 217 traps the blister cavity 213. The catch flap 217 in the outer package 215 abuts the interference blister in opening 213 or engages opening 213 itself, preventing the blister card 201 from being removed from the outer package. The interference blister opening 213 is located at either end or both ends of the blister card 201. In the later case, catch flaps 217 are formed and folded inward at both ends of the outer package blank 215, and the ends of the outer package are left open. In both cases, the catch flap or flaps 217 are sufficiently long to rest upon the tops of the product holding blisters so as not to prevent their outward sliding.

Figure 19 shows a blank 215 for forming a base package. The outer package 215 is cut, scored, folded and/or assembled from one or more pieces of material. In this embodiment, one continuous piece of paperboard is used. The material or combination of materials used is of any type that meets the functional needs of the outer package, typically paper or plastic. The shape of the outer package 215 would typically mimic that of the rectangular or other shaped blister card 201, but could vary as long as there is still a slot into which the blister card is concealed. The outer package contains a catch flap 217 that abuts against the interference blister in opening 213 or against opening 213, preventing the blister card 201 from sliding out of the package. One package employs a catch flap at both ends of the outer package, and the blister card also has an interference blister at either end. That allows the user to pull the blister card out of the package form either end. The embodiment in Figure 19 shows an outer package blank 215 formed from a single sheet of material. Scores for folding create a front panel 219, a back panel 221, two side panels 223, a glue panel 225, two end panels 227, one of which is glued to the other, and a catch flap 217 to form the finished shape. The catch flap 217 may have an opening 229. Folds, creases, or scores in the material separate each panel.

The catch flap 217 is attached to the front panel 219 or back panel 221 at the open end of the package and folded such that it extends inside the package. The catch flap 217 is long enough to ride on top of the product hold blisters in card openings 211 without getting caught on any of them, yet still abuts or falls into the interference blisters in openings 213. This prevents the user from separating the blister card 201 from the outer package, increasing the likelihood that the product information printed on the package stays with the product. The catch flap 217 can also be made such that it lies flat under the blister card 201, coinciding with the layered side

of the blister card 201. With the flap 217 in this orientation, the interference blister in opening 213 is formed so that the catch flap 217 extends up into the cavity of the blister.

Figure 20 is an illustration of a blank 231 for forming an outer package with additional panels 233, 235 for information as well as aesthetics. The blank 231 is similar to that of Figure 19. Additional panels/features can be extended from available raw edges or surfaces to create closure flaps, informational literature pockets, visual design features and other similar forms. A panel 237 is added to the open edge of the outer package opening end for aesthetic reasons. The aesthetic panel 237 extends from the front panel 219 or back panel 221 and is folded 180-degrees, unprinted side-to-unprinted side, and adhered to the inside of front panel 219 or back panel 221. This configuration effectively hides a raw edge, giving a more pleasing and finished look to the package. The aesthetic panel 237 may also have an opening 239. Unlike Figure 19, two additional panels 233, 235 are attached to the glue panel 225 for holding information.

Figure 21 a view of a finished container 241 with a blister card 243 partially removed from the outer package 245. Blisters 247 hold products or other materials. The openings 229, 239 in the outer package blanks become thumb holds 249 when the outer package 245 is glued and folded. Figure 22 shows an outer package 245 and blister card 243 side by side, with the end opening 251 in the outer package that receives the blister card 243. An interference mechanism 253 is also shown. Figure 23 is a perspective view of a combined blister card and package 241. Figure 24 shows an assembled blister card 243 with the interference mechanism 253, which may be a slotted and raised part of the card.

The loaded blister card 243 slides into or is placed inside of the outer package 245. Both the blister card 243 and outer package 245 have cooperating interference mechanisms that prevent the blister card 243 from being separated from the outer package 245. The interaction of

the outer card structure 245 with the structure of the blister card 243 is novel and unique, with or without the child resistant locking feature.

While the invention has been described with reference to specific embodiments, modifications and variations of the invention may be constructed without departing from the scope of the invention.

Claims:

1. A blister and package apparatus comprising:

a blister card for sliding into an outer package, the blister card further comprising:

a formable base,

one or more blisters formed in the base, the blisters having open cavities for holding products, and

one or more layers of frangible sheet material over openings in the cavities for closing the cavities and holding the products in the cavities and for opening to release the products from the cavities,

the outer package further comprising:

one or more pieces of sheet material folded for creating an enclosure for holding the blister card,

an interference mechanism for preventing complete separation of the blister card and the outer package, the interference mechanism further comprising:

a catch flap attached to the outer package, and

an interference stop on the blister card for contacting the catch flap on the outer package.

2. The apparatus of claim 1, wherein interference stop holds no product.

3. The apparatus of claim 1, wherein the interference stop is located near an end of the blister card.

4. The apparatus of claim 1, wherein the blister card is a continuous, self-contained blister sheet, with integrally formed blisters containing products and a fracturable sheet covering openings of the blisters and retaining products in the blisters.

5. The apparatus of claim 4, wherein the blister card is folded sheet material that has apertures on opposite sides respectively for receiving the blisters and for providing access to the fracturable sheet covering the blisters.

6. The apparatus of claim 1, wherein the one or more pieces of sheet material for forming the outer package are paper, paperboard, coated paper, plastic or a combination thereof.

7. The apparatus of claim 1, wherein the outer package has an open end and a closed end and the catch flap is located at and extends inward from the open end of the outer package.

8. The apparatus of claim 7, wherein the interference stop is located at an end of the blister card near the closed end of the outer package for interacting with the catch flap when the blister card is slid outward through the open end of the package.

9. The apparatus of claim 1, wherein the stop is spaced from the product holding blisters on the card and the catch flap rides on the product holding blisters when the blisters are adjacent the stop for moving toward the base for engaging the stop when the blisters are moved outside of the outer package by partially sliding the blister card outward from the outer package and wherein the catch flap is moved by the blisters as the blister card is slid inward in the outer package.

10. The apparatus of claim 1, further comprising a child resistant lock formed in the outer package, wherein sliding of the blister card partially outward from the outer package for exposing the blisters requires initially disengaging the child resistant lock.

11. The apparatus of claim 10, wherein the outer package has a closed end and an open end, and wherein the child resistant comprises an internal locking flap extending inward from an inner surface of the package toward the blister card and toward the closed end of the package for engaging the stop when the blister card is fully inserted in the outer package.

12. The apparatus of claim 11, further comprising a lifter connected to the locking flap for moving the locking flap out of engagement with the stop for permitting at least partial outward sliding of the blister card through the open end of the outer package for exposing the blisters from the outer package.

13. The apparatus of claim 10, further comprises scoring for folding.

14. The apparatus of claim 13, wherein the folding of the internal locking flap and first extension panels creates a spring back.

15. The apparatus of claim 1, wherein the one or more pieces of sheet material are cut, scored, folded and glued to create the outer package.

16. The apparatus of claim 15, wherein the cutting, scoring, folding and gluing create a front panel, back panel, side panels, the catch flap, locking panels and closure panels.

17. The apparatus of claim 15, wherein the cutting, scoring, folding and gluing creates one or more multiple thickness panels.

18. The apparatus of claim 15, wherein the cutting, scoring, folding and gluing creates one or more multiple thickness panels.

19. The apparatus of claim 15, wherein additional panels are created for literature pockets, closure flaps, tuck in flaps, and visual appearance.

20. The apparatus of claim 1, further comprising a folded over card carrier for wrapping around the blister card and gluing to hold the card folded over the blister card.

21. The apparatus of claim 20, wherein apertures are formed on a first half of the card carrier for providing access to the one or more layers of sheet material over the one or more cavities, and corresponding apertures are formed on a second half of the card carrier for receiving the cavities of the blister card.

22. The apparatus of claim 20, wherein the card carrier has a stop at one end and wherein the stop fits through a hole on the first half of the card carrier and a hole on the second half of the card carrier allows access to the stop.

23. The apparatus of claim 22, wherein the stop is a hollow blister with a flange for fitting between sides of the card carrier.

24. The apparatus of claim 20, wherein the card carrier is held closed by an extruded hot melt layer on the card that is activated by heat and pressure.

25. A blister and package apparatus comprising:

a blister card,

one or more blisters on the blister card for holding products,

one or more interference stops on the blister card,

an outer package for containing the blister card further comprising a top, a back, two sides, a closed end and an open end, and

a closure flap folded into the open end of the outer package, wherein the closure flap contacts top surfaces of the one or more blisters when the apparatus is closed and contacts the one or more interference stops when the apparatus is opened.

26. The apparatus of claim 25, further comprising a locking mechanism for preventing movement of the blister card out of the outer package.

27. The apparatus of claim 26, wherein the locking mechanism is a locking tab for contacting the one or more interference stops.

29. The apparatus of claim 27, wherein the locking mechanism is released by pressing a lever at an end of the locking tab.

30. The apparatus of claim 27, wherein the locking mechanism is released by

inserting a finger through an opening and releasing the locking tab.

30. A blister and package system method comprising:

providing an outer package of folded sheet materials,

providing a blister card for sliding into the outer package,

providing an interference mechanism for preventing complete separation of the blister card and the outer package, the interference mechanism further comprising a stop flap on the outer package and an interference stop on the blister card,

inserting the blister card into the outer package,

pulling an exposed end of the blister card until the stop flap on the outer package contacts the interference stop,

removing product from cavities in the blister card, and

pushing the exposed end of the blister card until the blister card is fully reinserted into the outer package.

31. The method of claim 30, wherein the stop flap is located at an open end of the outer package.

32. The method of claim 30, further comprising disengaging a child resistant lock before pulling the exposed end of the blister card out of the outer package.

33. The method of claim 32, wherein a release panel is located on the outer package for releasing the child resistant lock.

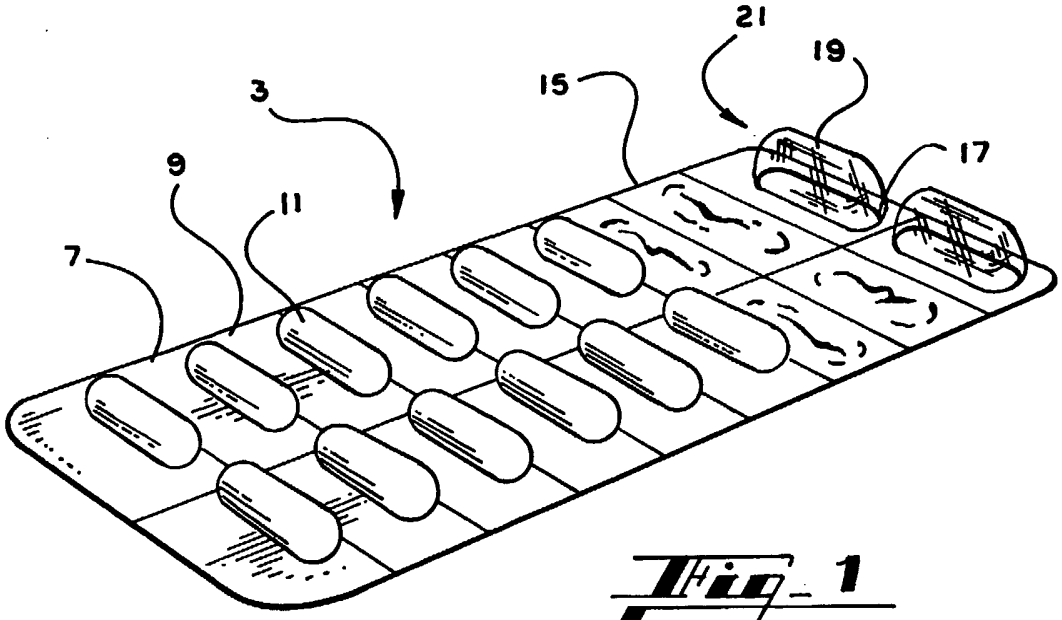


Fig. 1

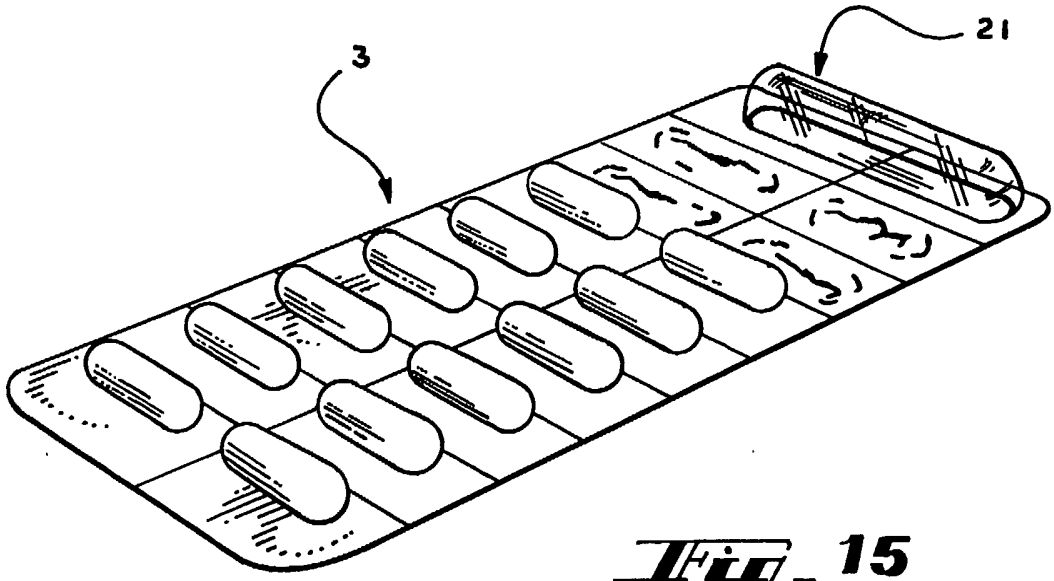
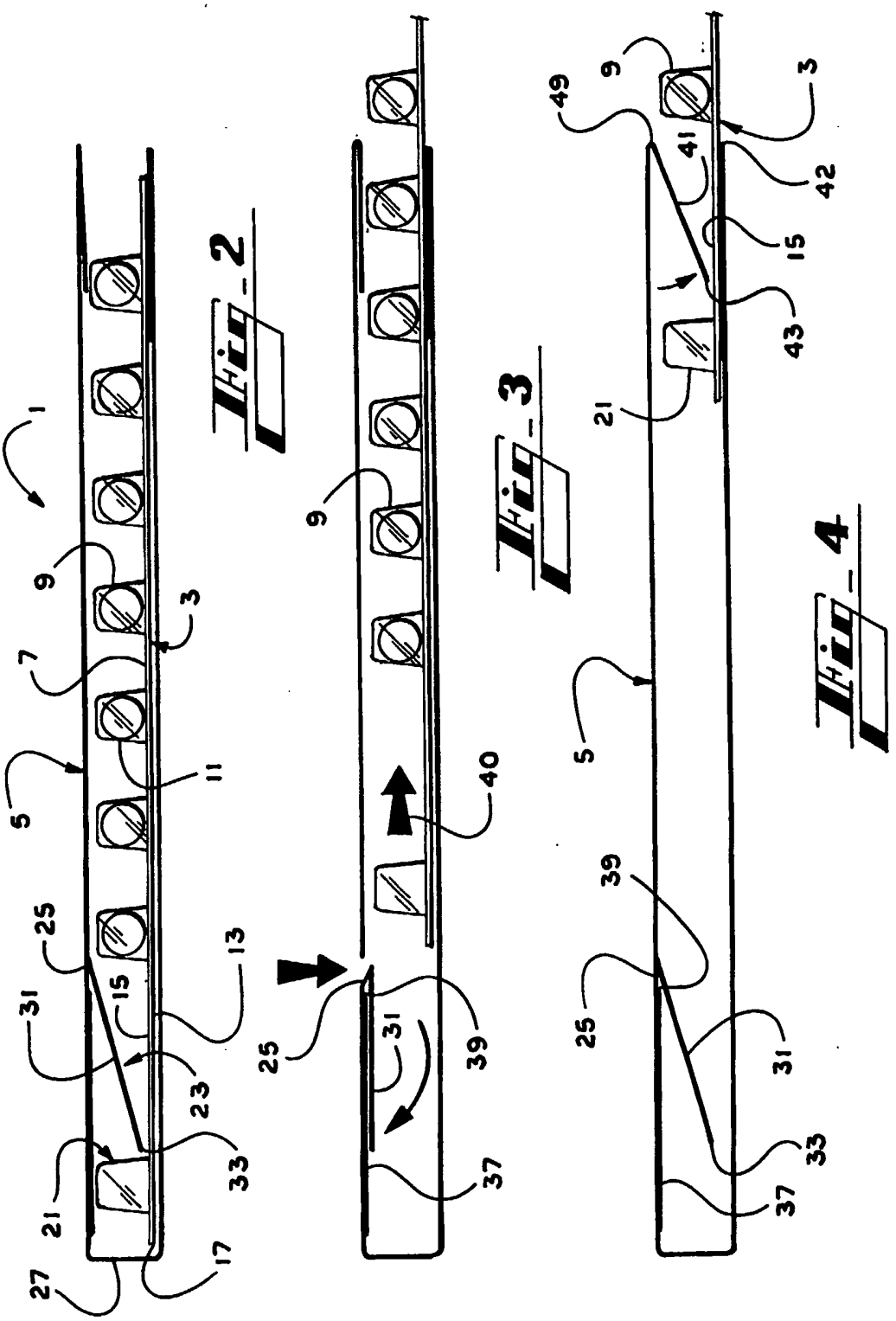


Fig. 15


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Fig_4

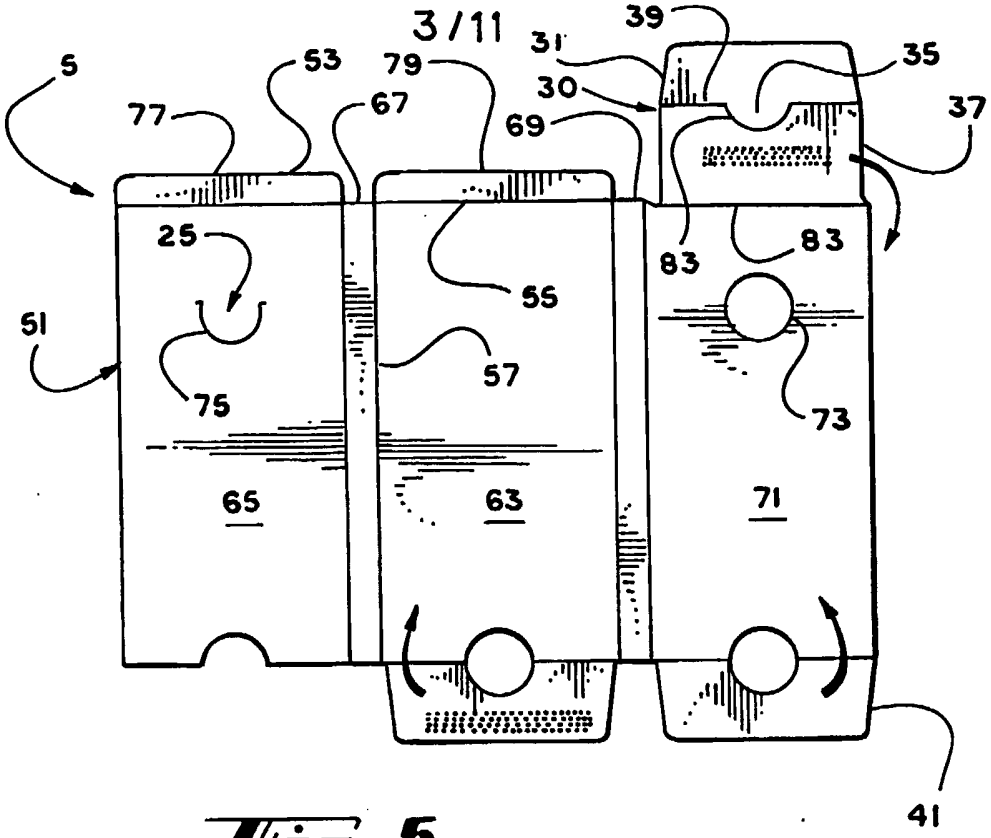


Fig. 5

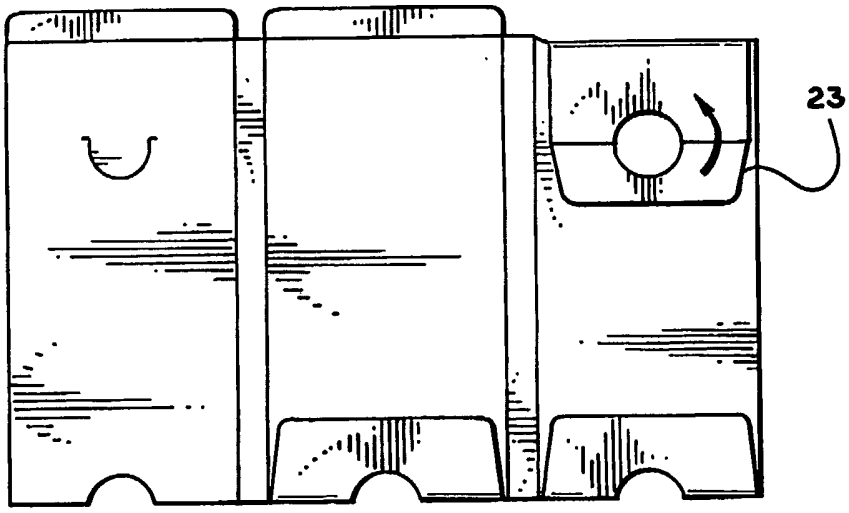


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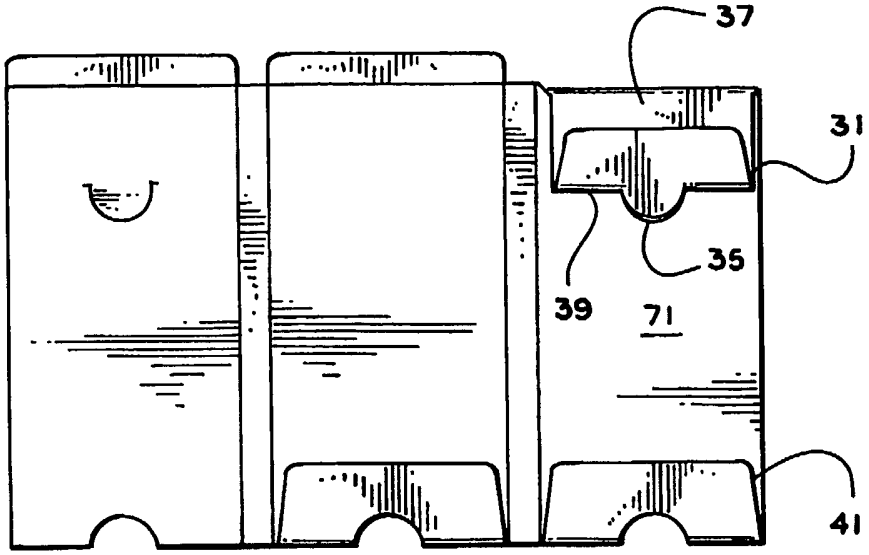


Fig_7

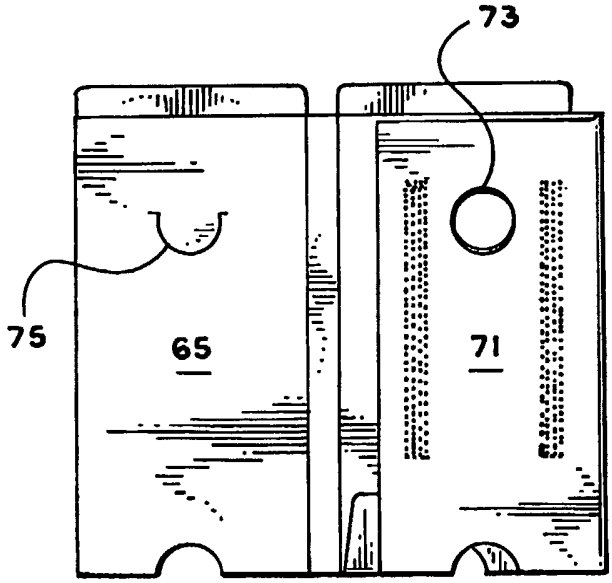


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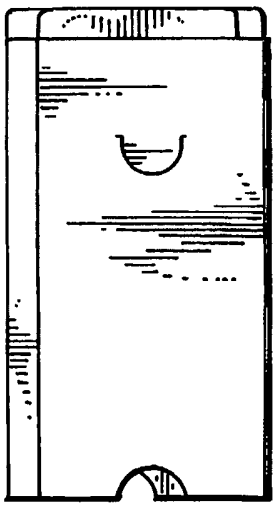


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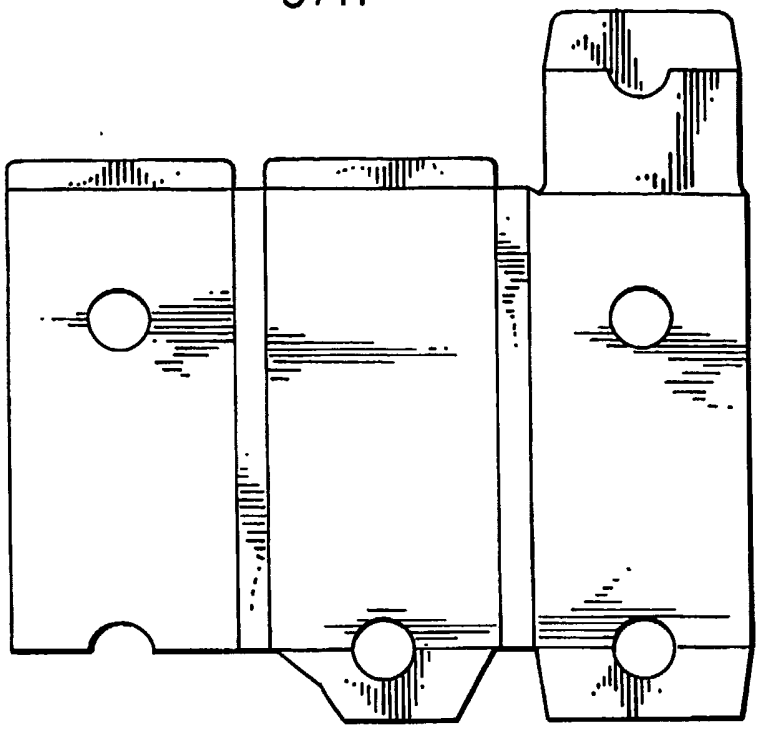


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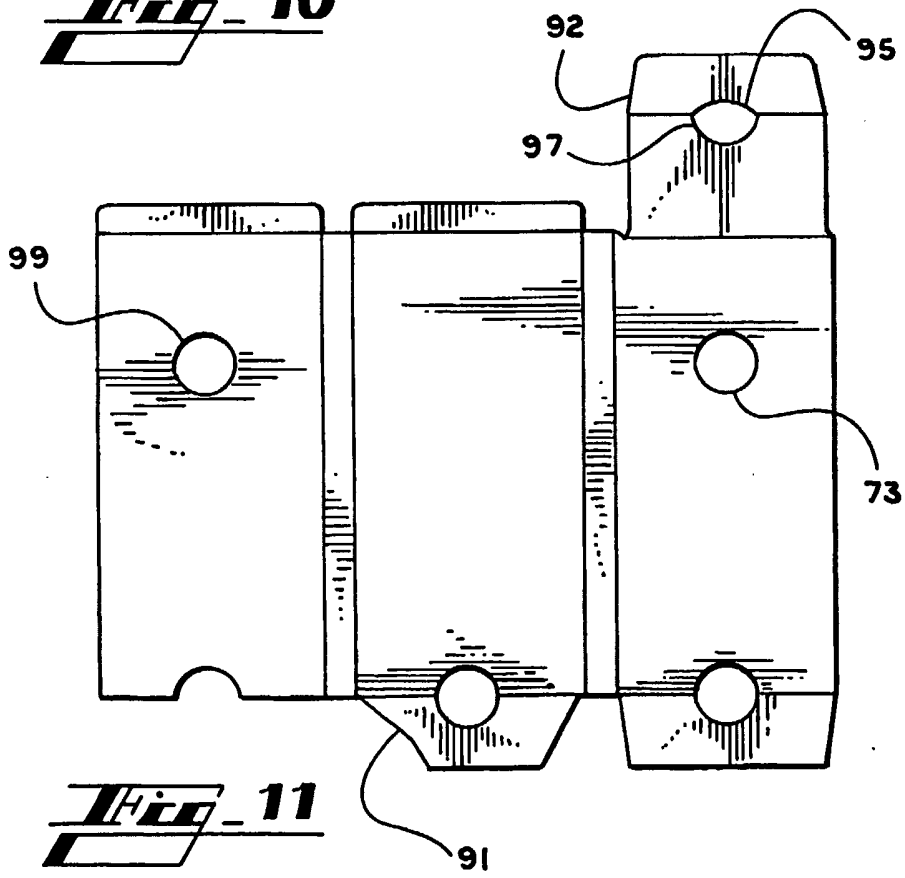


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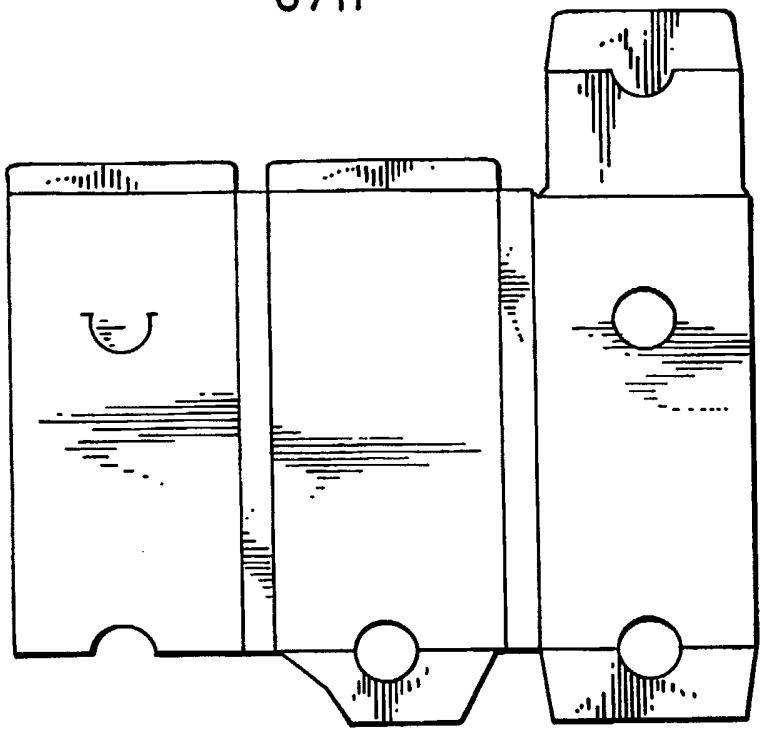


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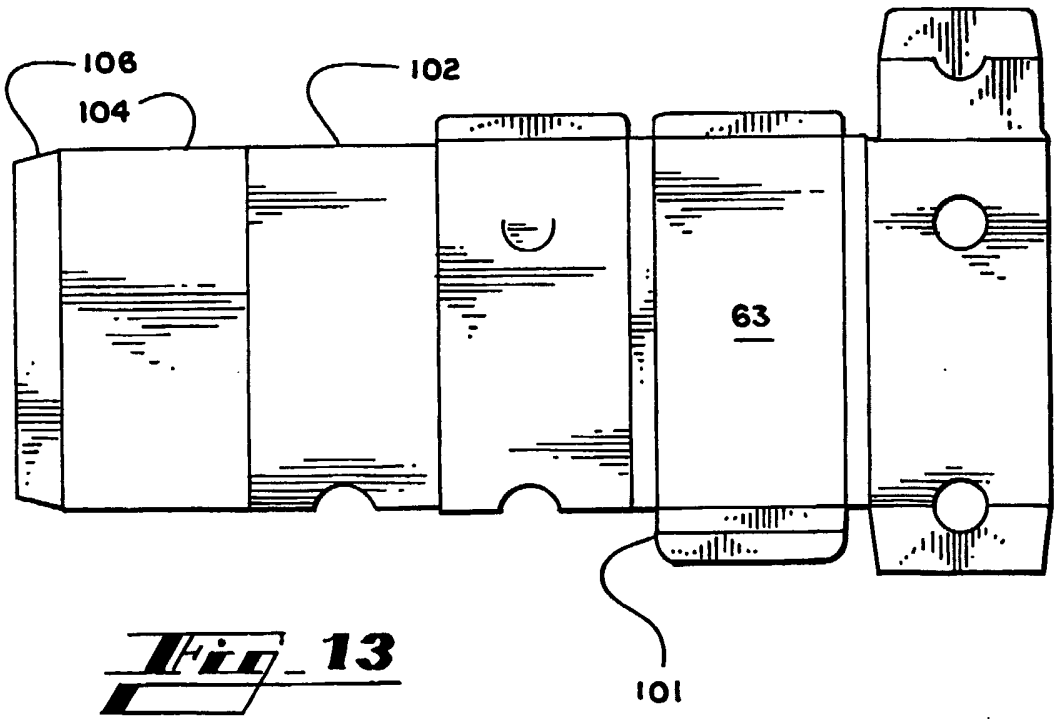


Fig_13

Fig_14

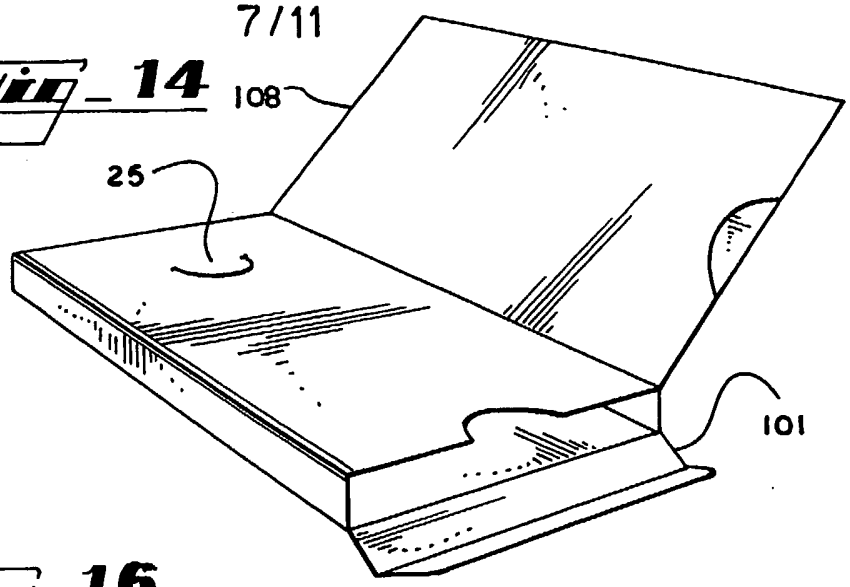
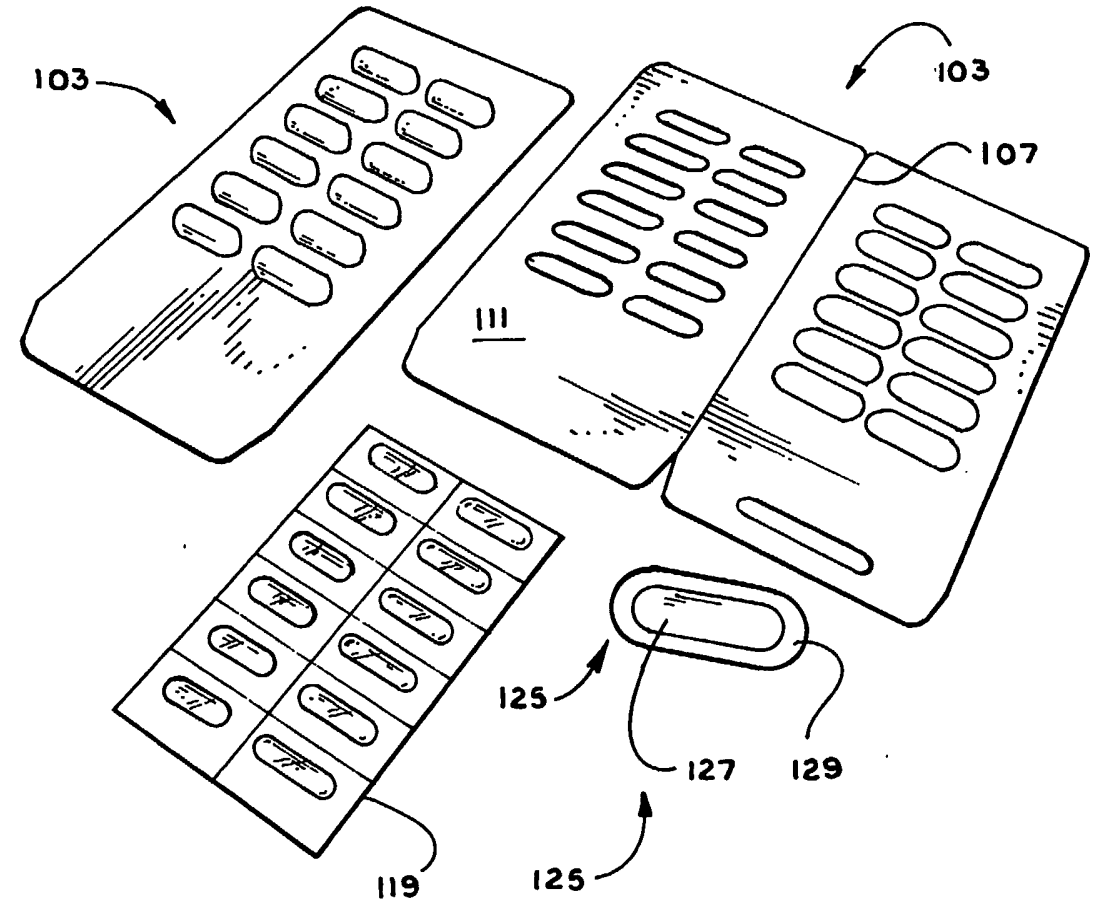


Fig_16



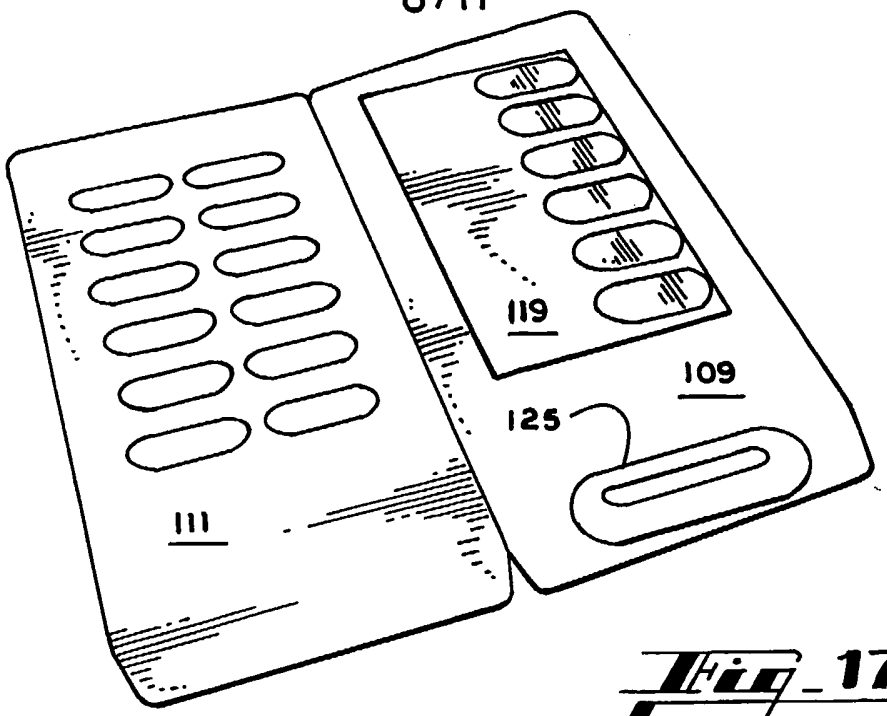


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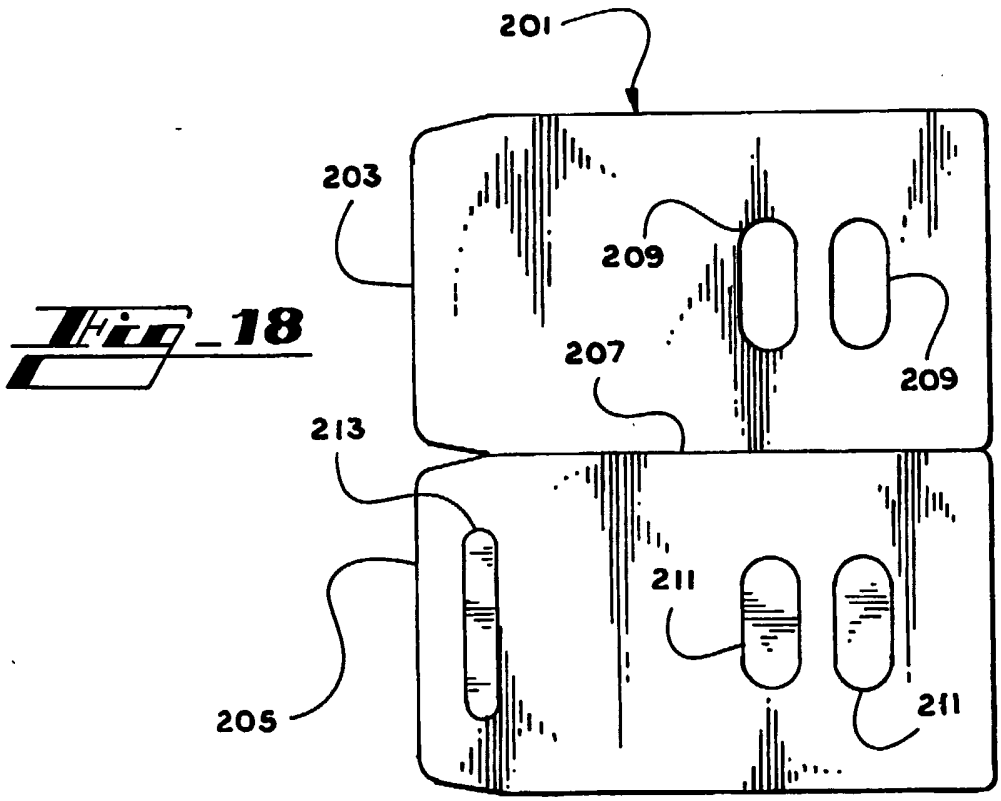


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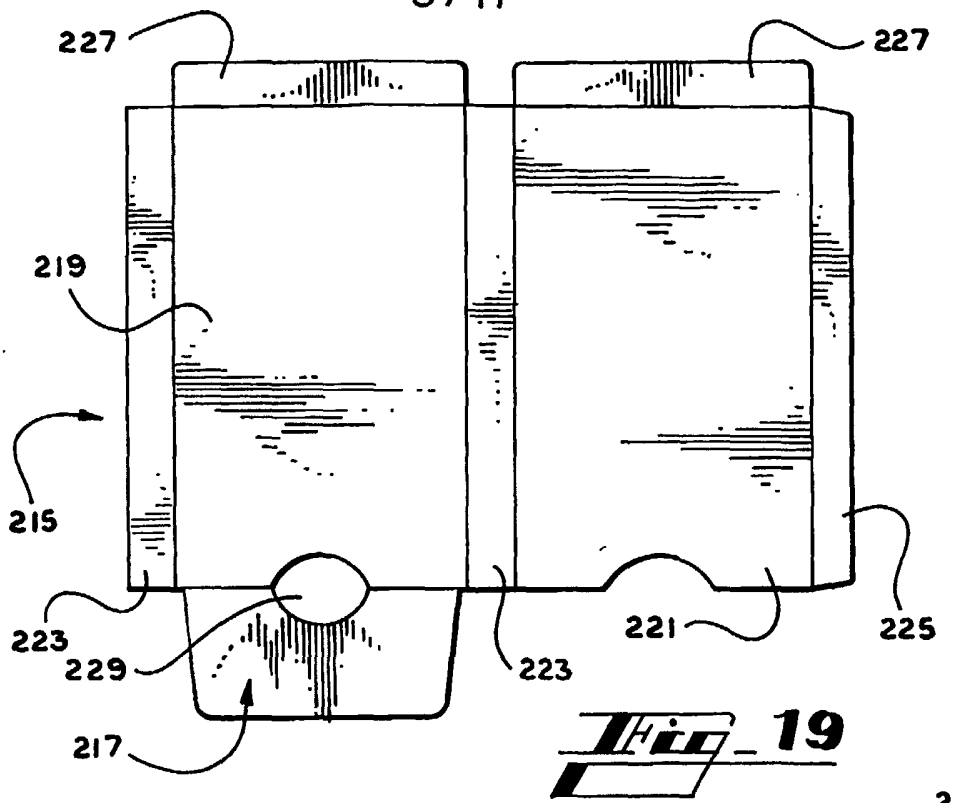

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Fig_19

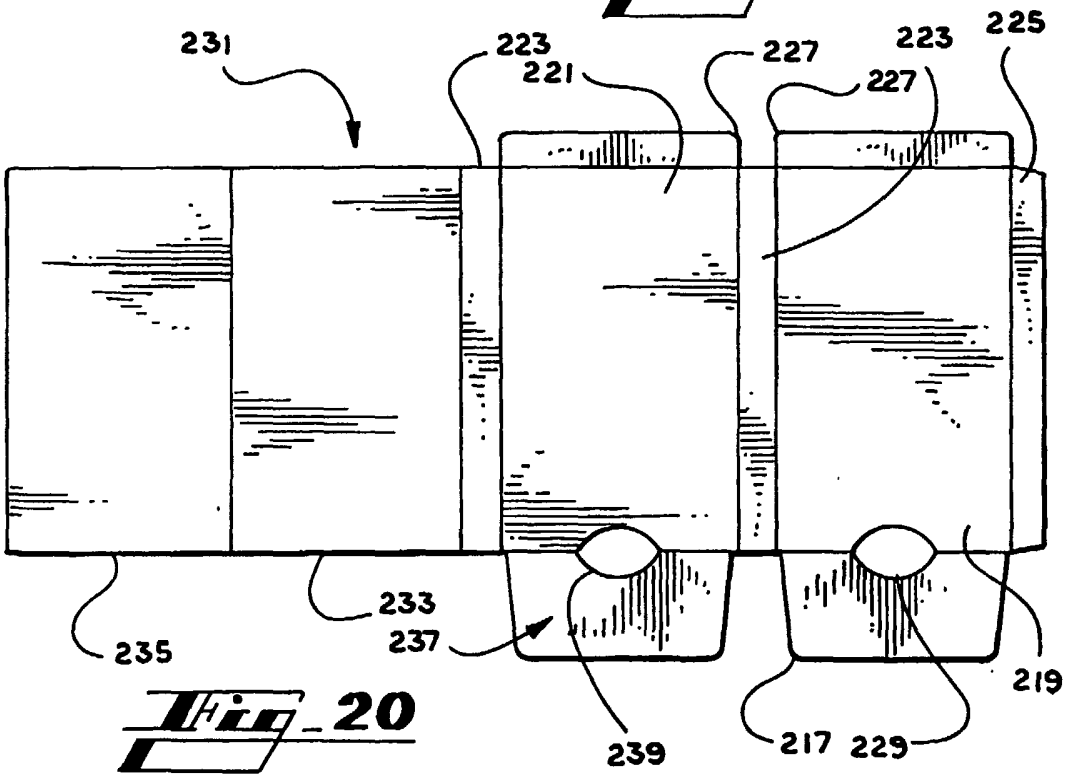

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Fig_20

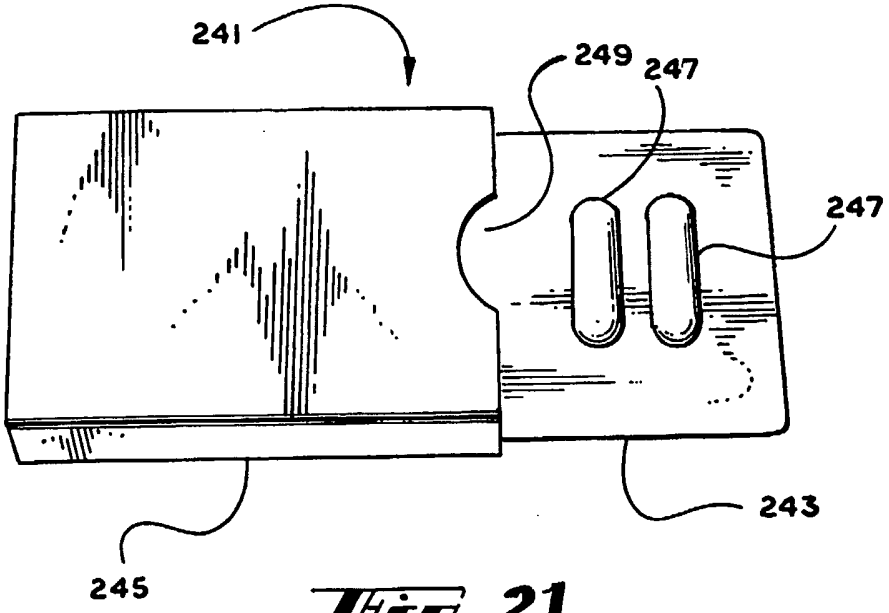


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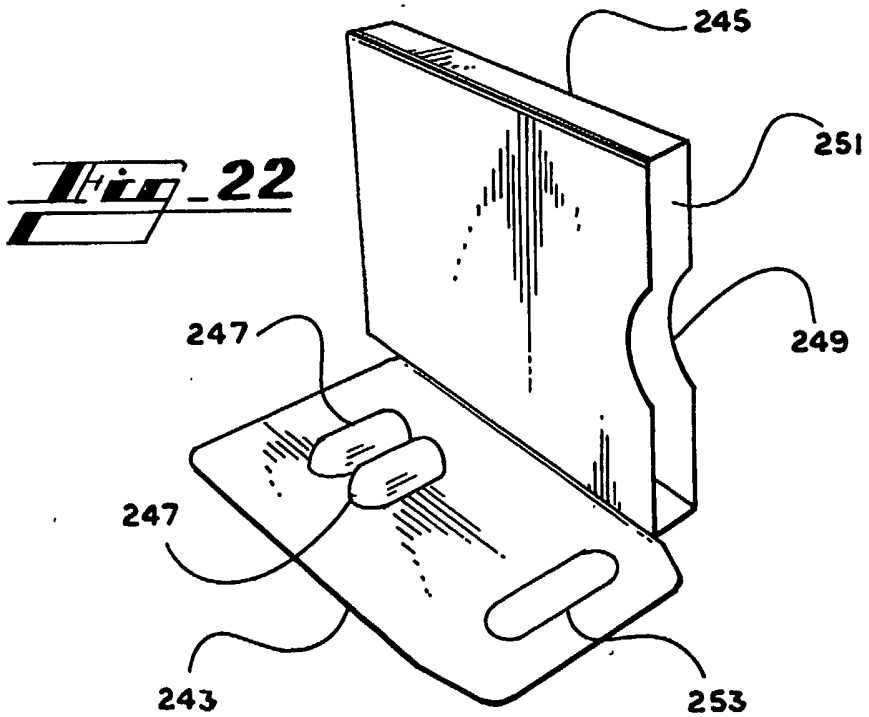


Fig_22

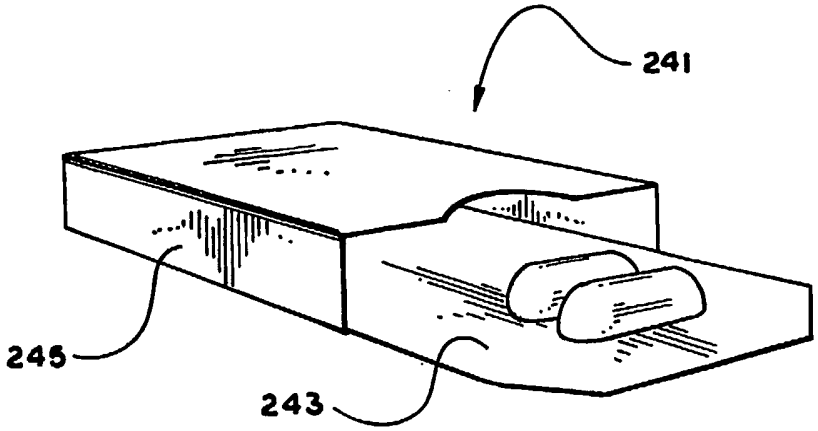


Fig. 23

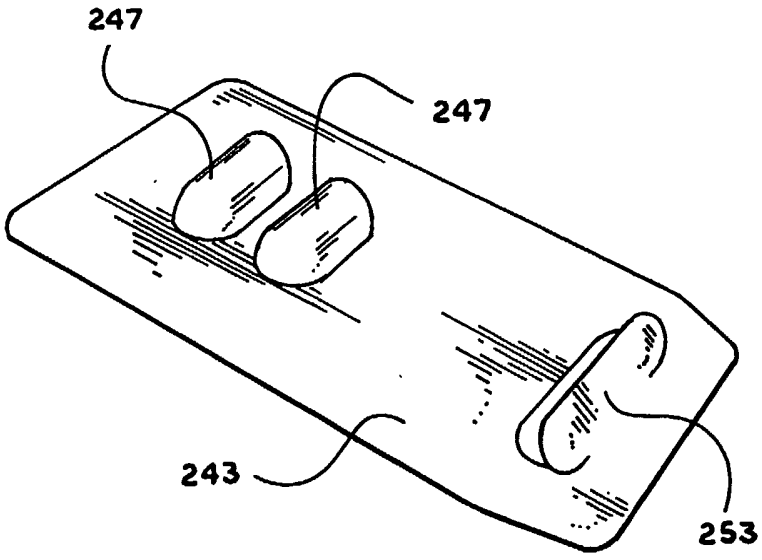


Fig. 24