



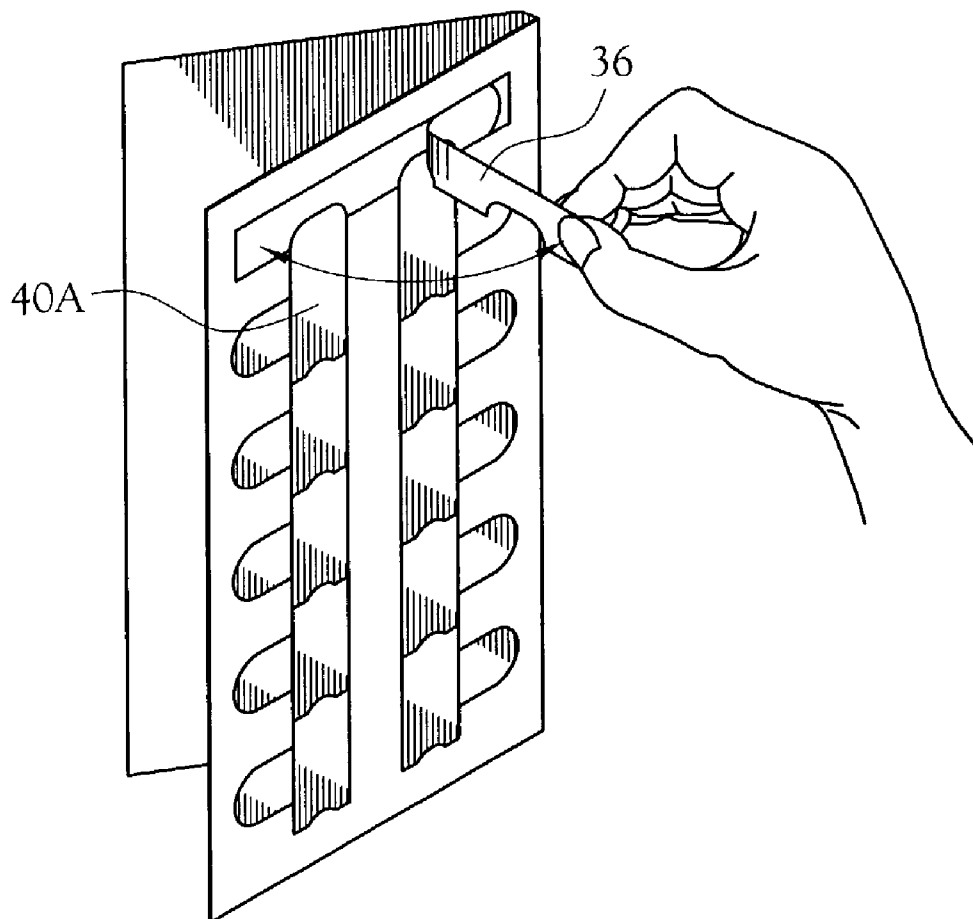
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(19) **United States**(12) **Patent Application Publication**  
**Stepowany**(10) **Pub. No.: US 2004/0188312 A1**(43) **Pub. Date: Sep. 30, 2004**(54) **024340 CHILDPROOF BLISTER PACK CARD**

(57)

**ABSTRACT**(75) Inventor: **Brian T. Stepowany**, Manasquan, NJ  
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New York, NY(21) Appl. No.: **10/402,674**(22) Filed: **Mar. 28, 2003****Publication Classification**(51) **Int. Cl.<sup>7</sup> ..... B65D 85/42**(52) **U.S. Cl. .... 206/531**

A childproof package for a pharmaceutical product includes a blister pack including at least one blister covered with a foil cover through which the pharmaceutical product can be pushed to eject it from the blister pack. A front panel defines at least one aperture through which the blister extends and includes a removable push tab. A middle panel defines at least one aperture in register with the aperture defined in the front panel and including a removable perforated tab located adjacent to the aperture defined in the middle panel and in register with the push tab. A rear panel includes a removable segment overlying the removable perforated tab and a removable cover segment overlying the foil cover of the blister pack. Ejection of the pharmaceutical product through the foil cover requires (a) removal of the removable segment from the rear panel, (b) pushing the push tab through the rear panel, (c) removal of the push tab, the perforated tab and the cover segment and (d) the application of pressure to the blister.



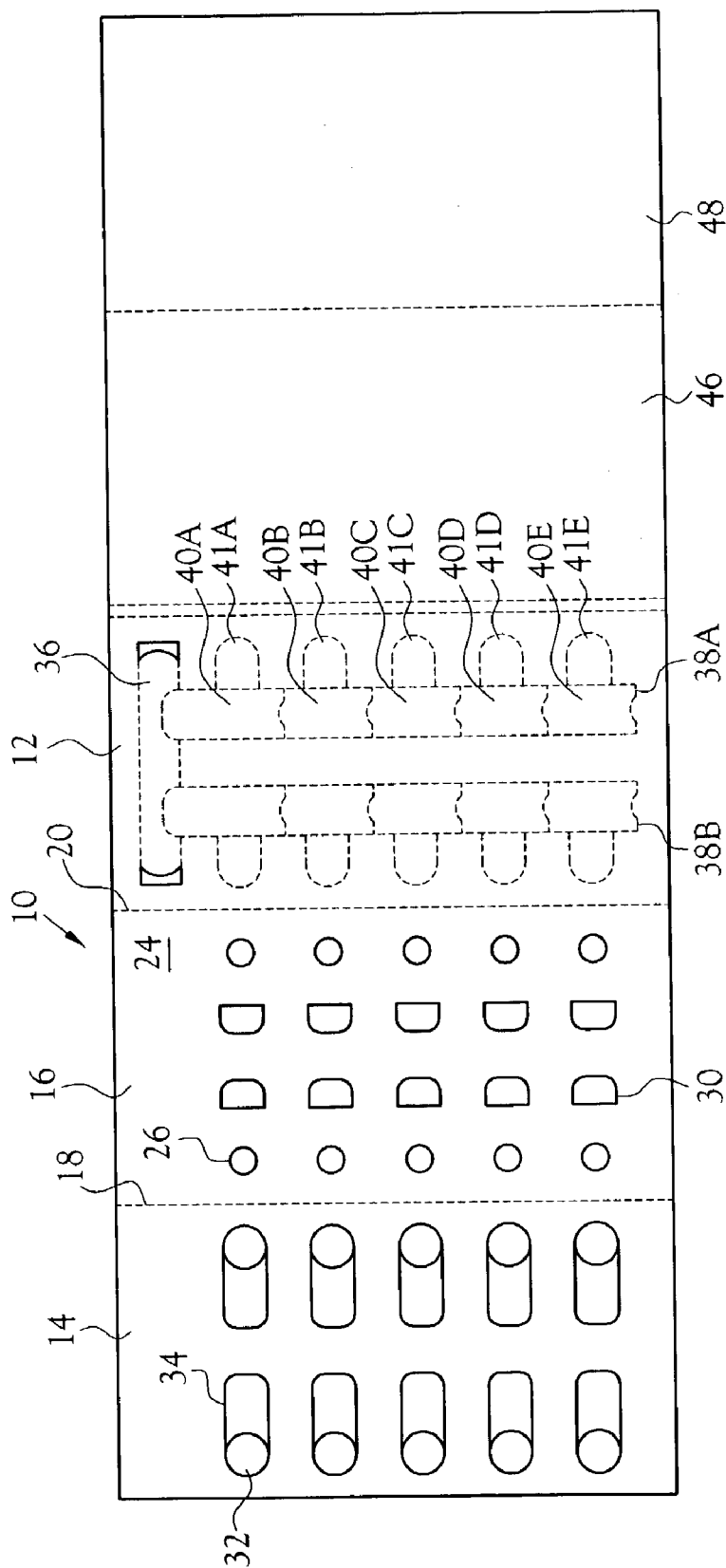


Fig. 1

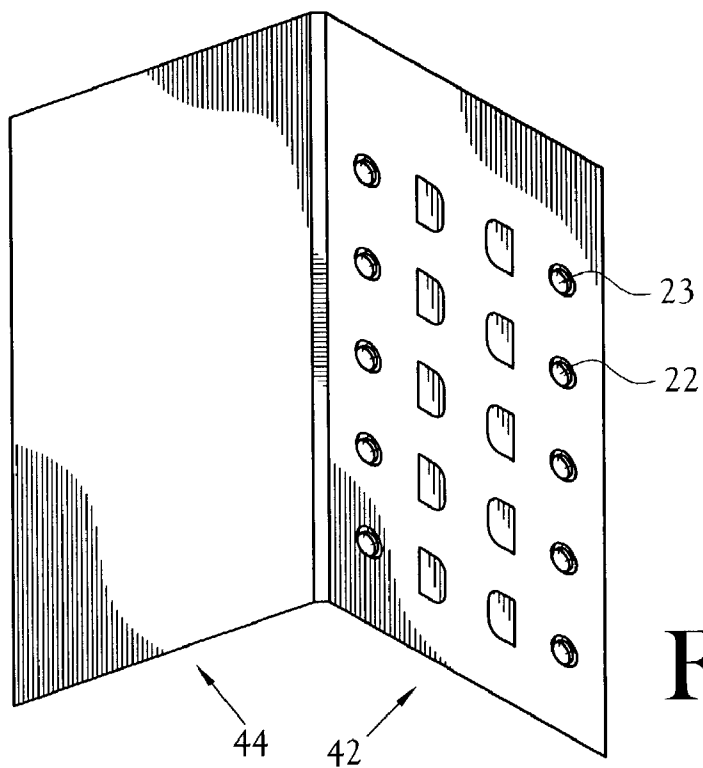


Fig. 2

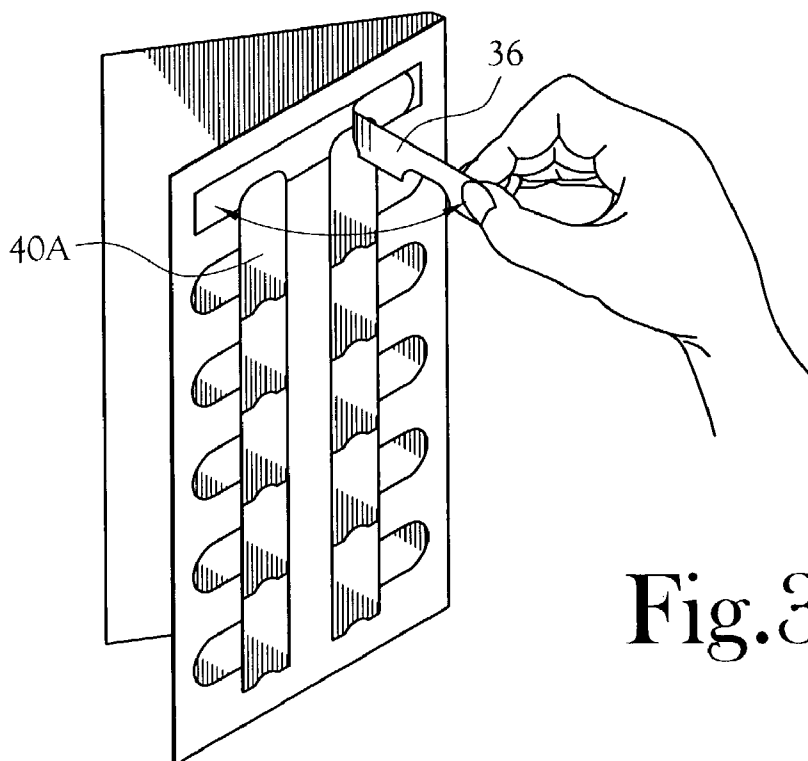


Fig. 3

10402674.032403

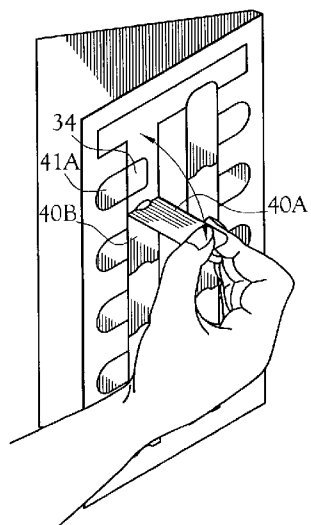


Fig.4

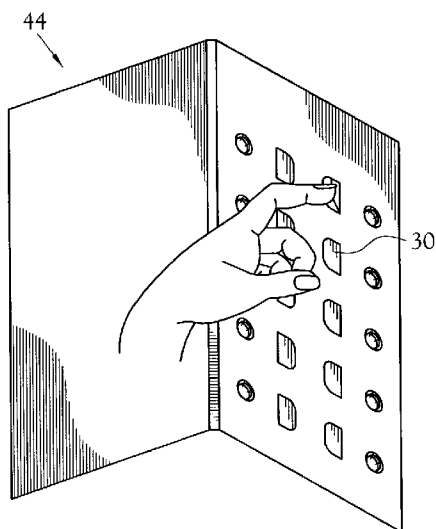


Fig.5

10902674, 032603

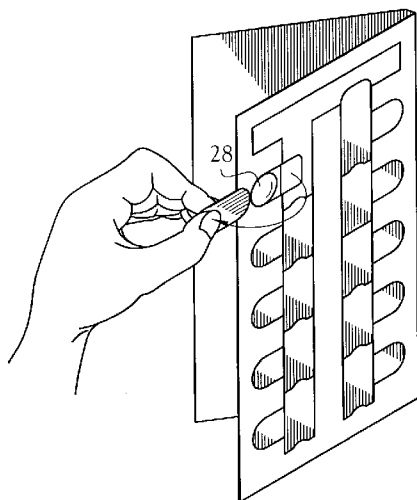


Fig. 6

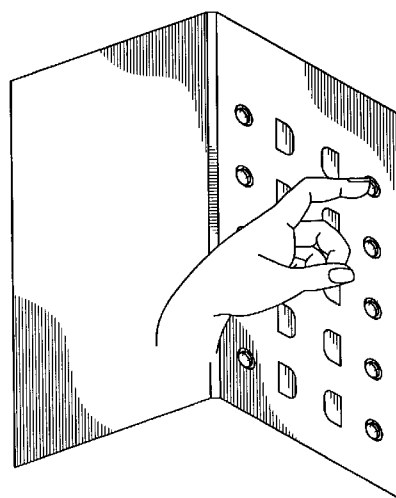


Fig. 7

500026 74.032605

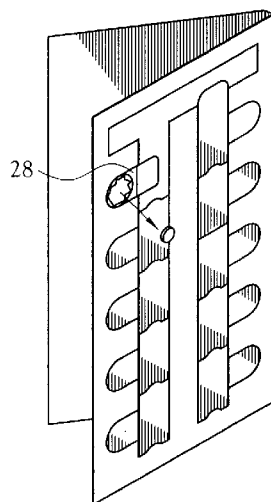


Fig.8



**024340 CHILDPROOF BLISTER PACK CARD****CROSS-REFERENCE TO RELATED APPLICATIONS**

[0001] Not Applicable

**STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT**

[0002] Not Applicable

**BACKGROUND OF THE INVENTION**

[0003] 1. Field of Invention

[0004] This invention pertains to a blister package for pharmaceutical products which is resistant to opening, requiring multiple steps to remove a pharmaceutical product

[0005] More particularly, this invention pertains to a package for pharmaceutical products which requires the removal of multiple sections in order to gain access to a blister containing a pharmaceutical product.

[0006] 2. Description of the Related Art

[0007] Recently there has been a concerted effort to develop various packaging for pharmaceutical products which are resistant to opening by children. Most commonly, this goal has been accomplished by providing a container with a lid that requires the application of pressure in just the right location(s) on the lid in order to remove the lid. This approach has been used most frequently in the area of prescription pharmaceuticals. There is, however a balance that must be achieved between making the package difficult for a child to open while still allowing an adult to open it, particularly an adult who may be impaired with arthritis, for example. In addition to being child-resistant, it is often desirable to package the tablets individually so that the correct number of tablets may be dispensed, one at a time.

[0008] Increasingly, medications, both prescription and over-the counter, are being packaged in blister packs. A blister pack comprises a flexible plastic or polymeric sheet which includes a plurality of depressions, i.e. blisters, each of which is sized to contain a pharmaceutical product, such as a tablet or capsule, for example. Generally, a foil sheet is applied over the blisters to seal the products within the blisters. When a user wants to use a product, he applies pressure to the blister to expel the product through the foil. Unfortunately, a blister pack alone is extremely susceptible to being opened by a child. Generally, the amount of pressure required to break the foil is quite small. Accordingly, various efforts have been made to increase the difficulty of gaining access to the foil layer of a blister pack.

[0009] U.S. patent application Publication No. U.S. Pat. No. 2003/0006163, published Jan. 9, 2003, discloses a childproof blister packaging in which a blister pack is enclosed within a three-panel sheet. When folded, one of the panels, an enclosed panel, is located between the foil sheet of the blister pack and another one of the panels. A movable closure located within the enclosed panel is movable from a position in which it blocks access to the foil sheet and a position in which an aperture in the movable closure is aligned with a blister to expose the foil and allow release of the tablet or capsule contained therein.

[0010] U.S. Pat. No. 4,125,190 issued to Davie, Jr. et al. on Nov. 14, 1978, discloses a child-resistant blister package in which a blister pack is sandwiched between an upper sheet and a lower sheet, each of which includes apertures. The apertures in the upper sheet allow the blisters to extend therethrough. The apertures in the lower sheet provide access to the foil sheet. A third sheet includes a single perforated strip which, after removal, permits access to the apertures defined in the lower sheet.

[0011] U.S. Pat. No. 6,138,830 issued to Muggli on Oct. 31, 2000, discloses a childproof packaging for tablets in which a blister pack is sandwiched between a base part and a cover part. A removable cover strip is located between the base part and the cover part to permit access to the foil sheet of the blister pack.

[0012] It is an object of the invention to provide a child resistant package for pills or tablets that is easy for an adult to open. It is another object of the invention to provide a package for pills or tablets that can dispense each pill or tablet individually. It is yet another object of the invention to provide a package for pills or tablets that is tamper evident. It is still another object of the invention to provide a package for pills or tablets providing ample area for instructions, warnings or advertisements.

[0013] These and other objects of the invention will become apparent after reviewing the disclosure of the invention.

**BRIEF SUMMARY OF THE INVENTION**

[0014] A childproof package for a pharmaceutical product includes a blister pack including at least one blister covered with a foil cover through which the pharmaceutical product can be pushed to eject it from said blister pack. A front panel defines at least one aperture through which the blister extends and includes a removable push tab. A middle panel defines at least one aperture in register with the aperture defined in the front panel and including a removable perforated tab located adjacent to the aperture defined in the middle panel and in register with the push tab. A rear panel includes a removable segment overlying the removable perforated tab and a removable cover segment overlying the foil cover of the blister pack. Ejection of the pharmaceutical product through the foil cover requires (a) removal of the removable segment from the rear panel, (b) pushing the push tab through the rear panel, (c) removal of the push tab, the perforated tab and the cover segment and (d) the application of pressure to the blister.

**BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS**

[0015] The above-mentioned features of the invention will become more clearly understood from the following detailed description of the invention read together with the drawings in which:

[0016] **FIG. 1** is a plan view of a blank for assembling a package embodying various features of the present invention;

[0017] **FIG. 2** is a perspective view of an assembled package in accordance with the present invention;

[0018] **FIG. 3** is a perspective view of an assembled package during removal of an initial perforation section;

[0019] FIG. 4 is a perspective view of an assembled package during removal of a first perforation section;

[0020] FIG. 5 is a perspective view of an assembled package during folding of a first tab;

[0021] FIG. 6 is a perspective view of an assembled package during removal of a first tab;

[0022] FIG. 7 is a perspective view of an assembled package during ejection of a tablet; and

[0023] FIG. 8 is a perspective view of an assembled package following ejection of a tablet.

#### DETAILED DESCRIPTION OF THE INVENTION

[0024] An improved childproof package for pharmaceuticals, requiring multiple steps for removing a single product from a blister pack is described herein.

[0025] FIG. 1 depicts a blank 10 for assembling a package in accordance with the present invention. The blank 10 includes a rear panel 12, middle panel 14 and front panel 16. The panels 12, 14 and 16 are generally rectangular in shape and of similar dimensions. A fold line 18 connects the front panel 16 to the middle panel 14. A fold line 20 connects the front panel 16 to the rear panel 12. During assembly, a blister pack 22 is placed upon the surface 24 of the front panel 16 so that each blister 23 extends through an aperture 26 defined in the front panel 16. In the depicted embodiment the blister pack 22 includes ten blisters 23, though the number is not restrictive of the present invention. Thereafter, the middle panel 14 is folded along the fold line 18, over the foil surface 28 of the blister pack 22 to capture the blister pack 22 between the front panel 16 and the middle panel 14. The middle panel 14 is secured in a position parallel to the front panel 16 with an adhesive. The rear panel 12 is then folded along the fold line 20 over the middle panel 14 to capture the middle panel 14 between the blister pack 22 and the rear panel 12. The rear panel 12 is secured in a position parallel to the middle panel 14 with an adhesive.

[0026] The front panel 16 includes a series of push tabs 30 in spaced relation to the apertures 26. A push tab 30 is associated with each of the apertures 26. In the depicted embodiment the push tabs 30 are D-shaped. The push tabs 30 are frangibly connected to the front panel 16, as with perforations, for example.

[0027] The middle panel 14 includes a series of apertures 32 positioned to register with the apertures 26 in the front panel 16 when the middle panel 14 is folded over the front panel 16. Adjacent to each aperture 32 is a perforated tab 34. The tabs 34 are frangibly connected to the middle panel 14, as with perforations, for example. A push tab 30 overlies a portion of each perforated tab 34 and is secured thereto, as with adhesive, for example.

[0028] The rear panel 12 has a T-shaped perforated section formed by a top section 36 and two base sections 38A and 38B. In the depicted embodiment, the top section 36 comprises a single removable section which, upon removal, allows access to the two base sections 38A and 38B. It will be recognized that a separate top section 36 may be provided to permit individual access to each of the base sections 38A and 38B. Each of the base sections 38A and 38B comprises five individual perforated sections 40A, 40B, 40C, 40D and

40E. Each of the sections 40A, 40B, 40C, 40D and 40E overlies the portion of a perforated tab 34 to which the push tab 30 is secured. Adjacent to each of the perforated sections 40A, 40B, 40C, 40D and 40E is a removable cover segment, 41A, 41B, 41C, 41D and 41E, respectively. Each cover segment 41A, 41B, 41C, 41D and 41E overlies a perforated tab 34, to which it is preferably secured, as with glue, for example. When in position, the sections 40A, 40B, 40C, 40D and 40E prevent the push tabs 30 and perforated tabs 34 from being pushed through the rear panel 12. When in position, the sections 41A, 41B, 41C, 41D and 41E prevent tablets from being ejected through the foil 28.

[0029] In the depicted embodiment of a blank for making a package of the invention having both a tablet section 42 formed by the rear panel 12, middle panel 14 and front panel 16, and a display section 44 formed by a first display panel 46 hingedly connected to the rear panel 12 and a second display panel 48 foldably connected to the first display panel 46. The two panels 46 and 48 may be glued to one another to provide rigidity and support to the display section 44 or may not be adhered, providing a larger surface on which to put indicia, such as instructions, warnings or advertising. The first display panel 46 is connected to the rear panel 12 by a double fold line, adequately accounting for the thickness of the tablet section 42 when the package is assembled.

[0030] With the structure of the package having been described, the manner in using the package is now explained using FIGS. 2-8.

[0031] The package shown in FIGS. 2-8 has two sections hingedly connected to one another, the tablet holding section 42 and the display section 44. FIG. 2 shows the package in an open position with the front of the package being visible, exposing the blisters 23, each containing a tablet.

[0032] FIG. 3 shows the first step in using the package. A user removes the top section 36 to allow access to the first removable segment 40A. As shown in FIG. 4, the user then tears away the first removable segment 40A to expose the portion of the perforated tab 34 that overlies the push tab 30. Then, as depicted in FIG. 5, the user pushes the push tab 30 and the exposed portion of the perforated tab 34 through the rear panel 12. As depicted in FIG. 6, once this is done, the user grabs the push tab 30 and perforated tab 34 and removes them, along with the section 41A by pulling the push tab 30 and perforated tab 34 through the aperture made by the removal of the perforated base segment 40A. As shown in FIGS. 7 and 8, with the impediment of the perforated tab 34 removed, the user is able to push the tablet stored in the blister 23 through the back of the tablet section 42 by rupturing the foil section 28.

[0033] When the next tablet is required, the segment 40B is removed and then the push tab 30 and perforated section 34 underlying segment 40B are pushed through the rear panel 12, and removed along with the section 41B. The user then pushes the next tablet stored in the next blister 23 through the back of the tablet section 42 by rupturing the foil section 28.

[0034] Those skilled in the art will recognize that a package has been provided which provides a substantial deterrent to opening by a young child. The removal of each tablet from the package requires at least four different actions including removal of a perforated base segment from



the back, pushing a push tab from the front to the rear of the tablet section **42**, removing the push tab, perforated tab and cover segment from the rear and pushing the tablet from the front through the foil. The actions alternate between the front of the tablet section **42** and the rear of the tablet section.

[0035] While the present invention has been illustrated by description of several embodiments and while the illustrative embodiments have been described in considerable detail, it is not the intention of the applicant to restrict or in any way limit the scope of the appended claims to such detail. Additional advantages and modifications will readily appear to those skilled in the art. The invention in its broader aspects is therefore not limited to the specific details, representative apparatus and methods, and illustrative examples shown and described. Accordingly, departures may be made from such details without departing from the spirit or scope of applicant's general inventive concept.

Having thus described the aforementioned invention, we claim:

1. A childproof package for a pharmaceutical product comprising:

a blister pack including at least one blister covered with a foil cover through which said pharmaceutical product can be pushed to eject it from said blister pack;

a front panel defining at least one aperture through which said blister extends and including a removable push tab;

a middle panel defining at least one aperture in register with said aperture defined in said front panel and including a removable perforated tab located adjacent to said aperture defined in said middle panel and in register with said push tab; and

a rear panel including a removable segment overlying said removable perforated tab and a removable cover segment overlying said foil cover,

whereby ejection of said pharmaceutical through said foil cover requires (a) removal of said removable segment, (b) pushing said push tab through said rear panel, (c)

removal of said push tab, said perforated tab and said cover segment and (d) the application of pressure to said blister.

2. The package of claim 1 wherein said push tab is adhered to said perforated tab.

3. The package of claim 1 wherein said perforated tab is adhered to said cover segment.

4. The package of claim 1 wherein said rear panel includes a removable top section located adjacent to said removable segment to restrict access to said removable segment.

5. The package of claim 1 and further comprising a display section attached to said package.

6. A blank for the assembly of a childproof package for a pharmaceutical product, said blank comprising:

a sheet comprising a front panel, a first fold line connecting said front panel to a middle panel and a second fold line connecting said front panel to a rear panel, said front panel defining at least one aperture adapted to receive a blister of a blister pack and including a removable push tab, said middle panel defining at least one aperture located to register with said aperture defined in said front panel and including a removable perforated tab located adjacent to said aperture defined in said middle panel and to register with said push tab; and said rear panel including a removable segment located to overlie said removable perforated tab and a removable cover segment located to overlie said foil cover.

6. The blank of claim 5 and further comprising a display section attached to said sheet.

7. The blank of claim 5 wherein said push tab is removable by breaking perforations.

8. The blank of claim 5 wherein said rear panel includes a plurality of sequentially removable segments.

9. The blank of claim 5 wherein said cover segment is removable by breaking perforations.

10. The blank of claim 5 wherein said removable segment is removable by breaking perforations.

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