



US 20040188312A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2004/0188312 A1**
Stepowany (43) **Pub. Date: Sep. 30, 2004**

(54) **024340 CHILDPROOF BLISTER PACK CARD**

(75) Inventor: **Brian T. Stepowany**, Manasquan, NJ
(US)

Correspondence Address:
PITTS AND BRITTIAN P C
P O BOX 51295
KNOXVILLE, TN 37950-1295 (US)

(73) Assignee: **Shorewood Packaging Corporation**,
New York, NY

(21) Appl. No.: **10/402,674**

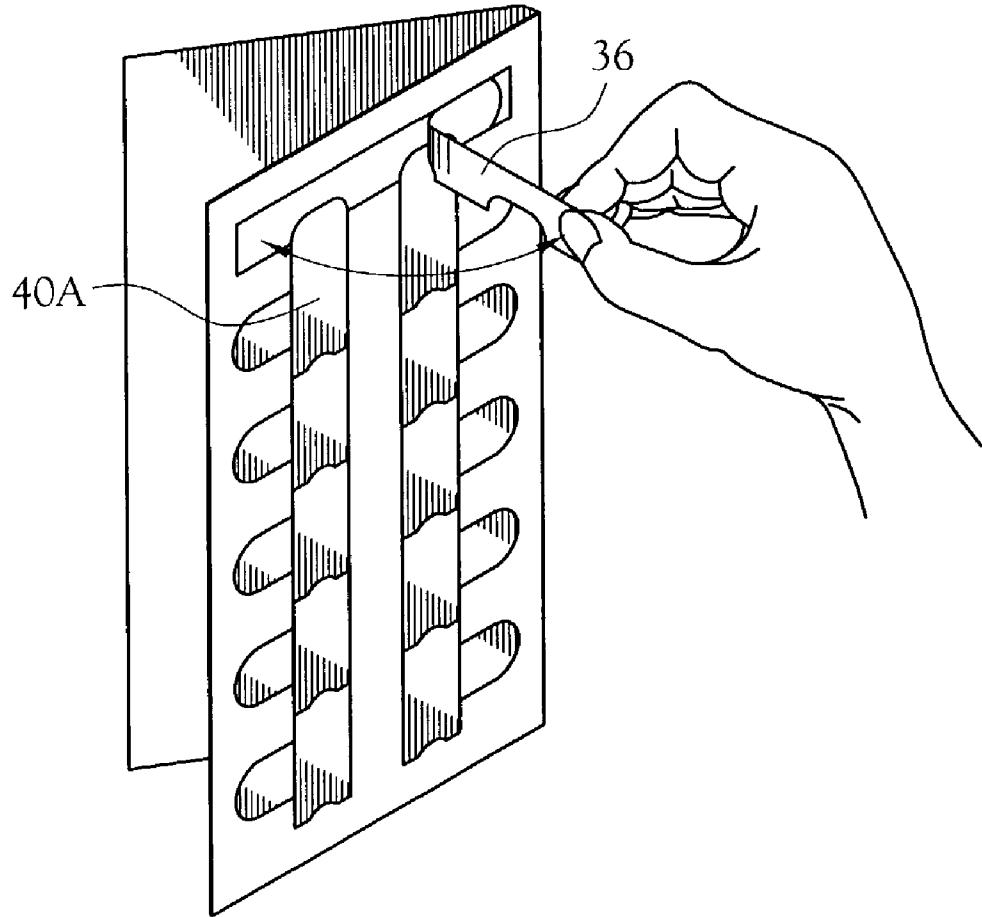
(22) Filed: **Mar. 28, 2003**

Publication Classification

(51) **Int. Cl.⁷** **B65D 85/42**
(52) **U.S. Cl.** **206/531**

ABSTRACT

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.



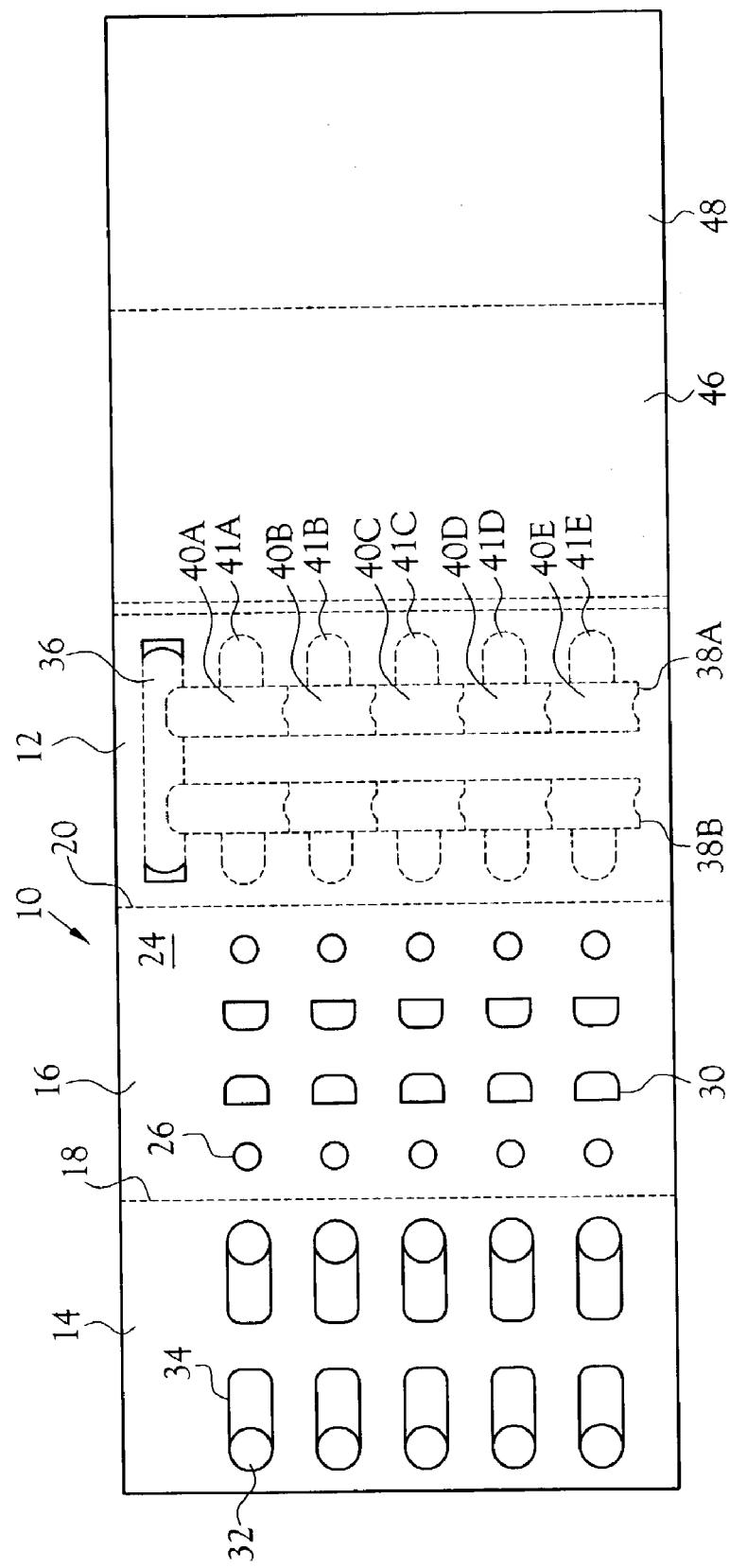


Fig. 1

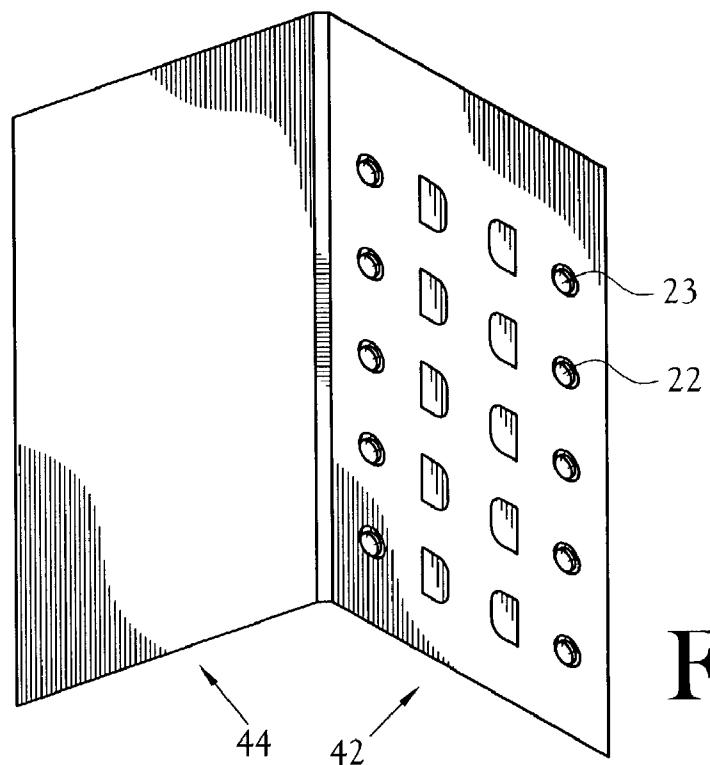


Fig.2

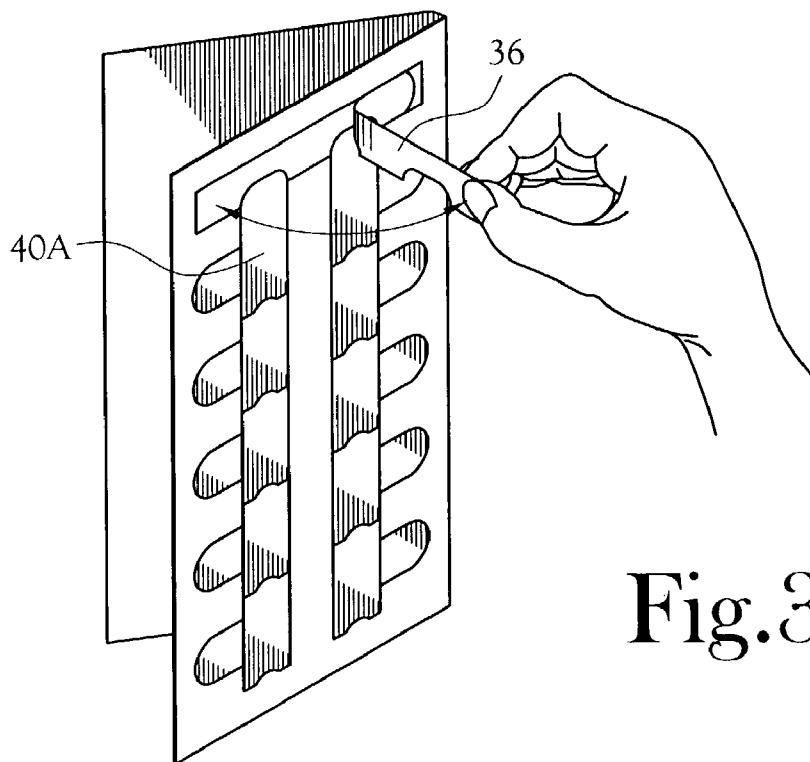


Fig.3

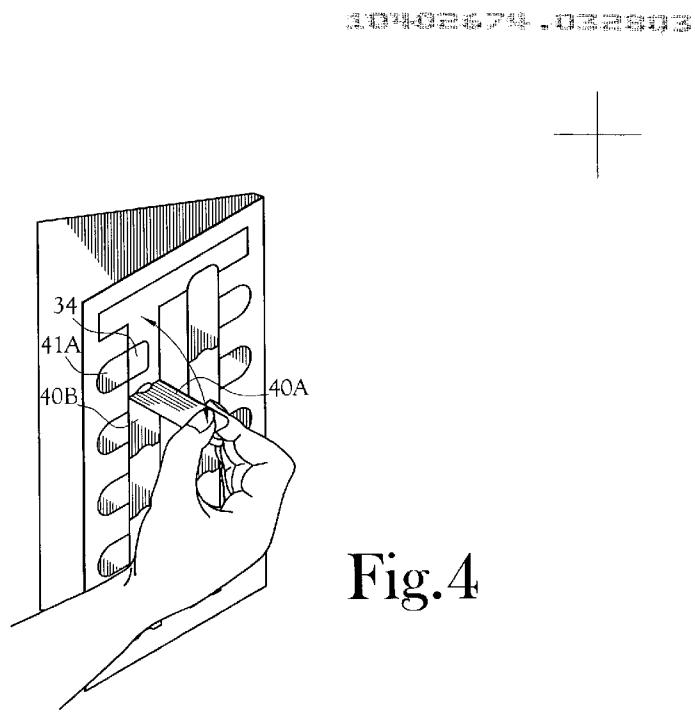


Fig.4

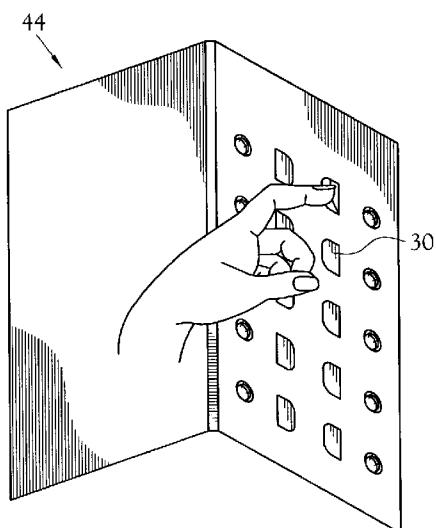


Fig.5

20040263734-A1

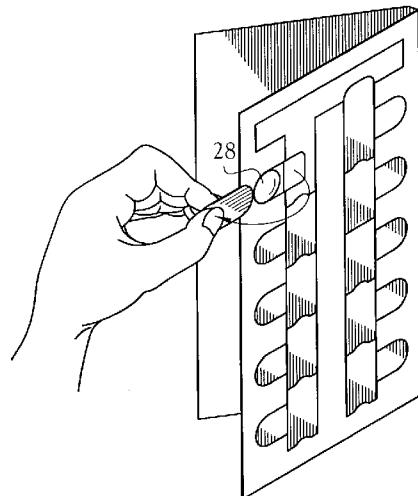


Fig.6

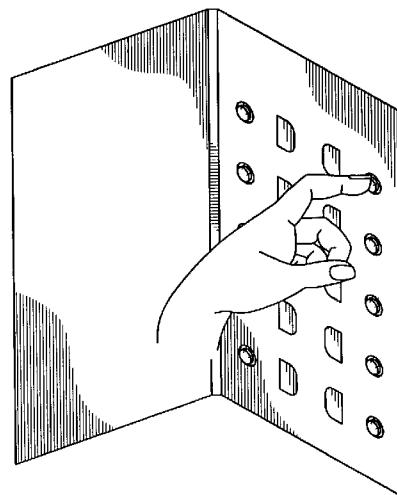


Fig.7

2004-09-30 10:03:30.000

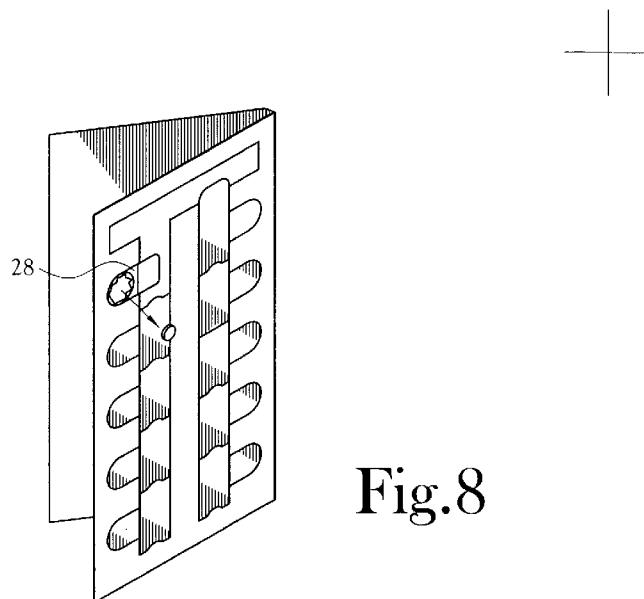


Fig.8



024340 CHILDPROOF BLISTER PACK CARDCROSS-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**, **411B**, **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 though 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.

* * * * *