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Leaman

(54) **MEDICINE PACKAGE**

(76) Inventor: **Paul L. Leaman**, Carmel, IN (US)

Correspondence Address:
BOSE MCKINNEY & EVANS LLP
111 MONUMENT CIRCLE, SUITE 2700
INDIANAPOLIS, IN 46204 (US)

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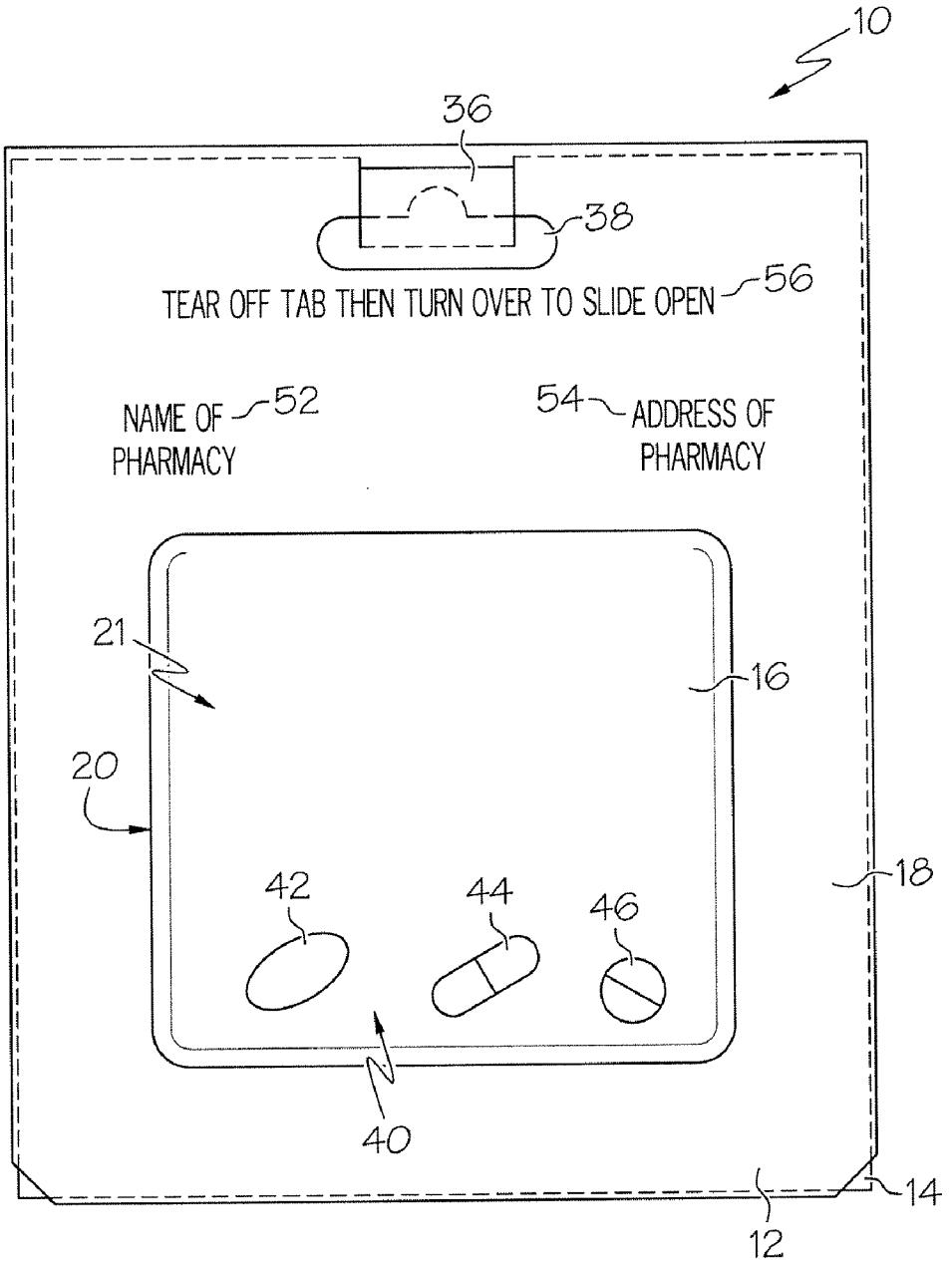
(57) **ABSTRACT**

A medicine package to hold at least one medication. The medicine package includes a tray including an aperture and a card adapted to be removably coupled to the tray.



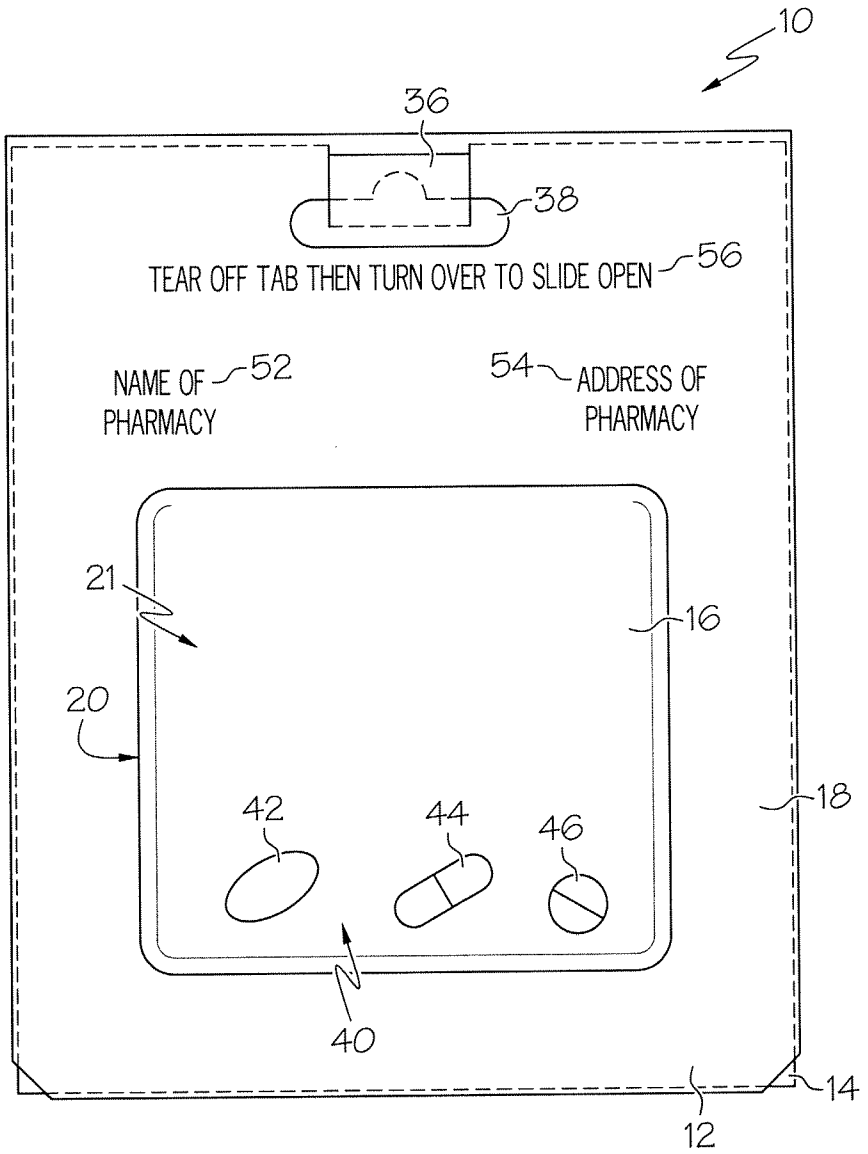

10
36
38
TEAR OFF TAB THEN TURN OVER TO SLIDE OPEN
56
NAME OF PHARMACY
52
54
ADDRESS OF PHARMACY
21
16
20
18
42
44
46
40
14
12

FIG. 1

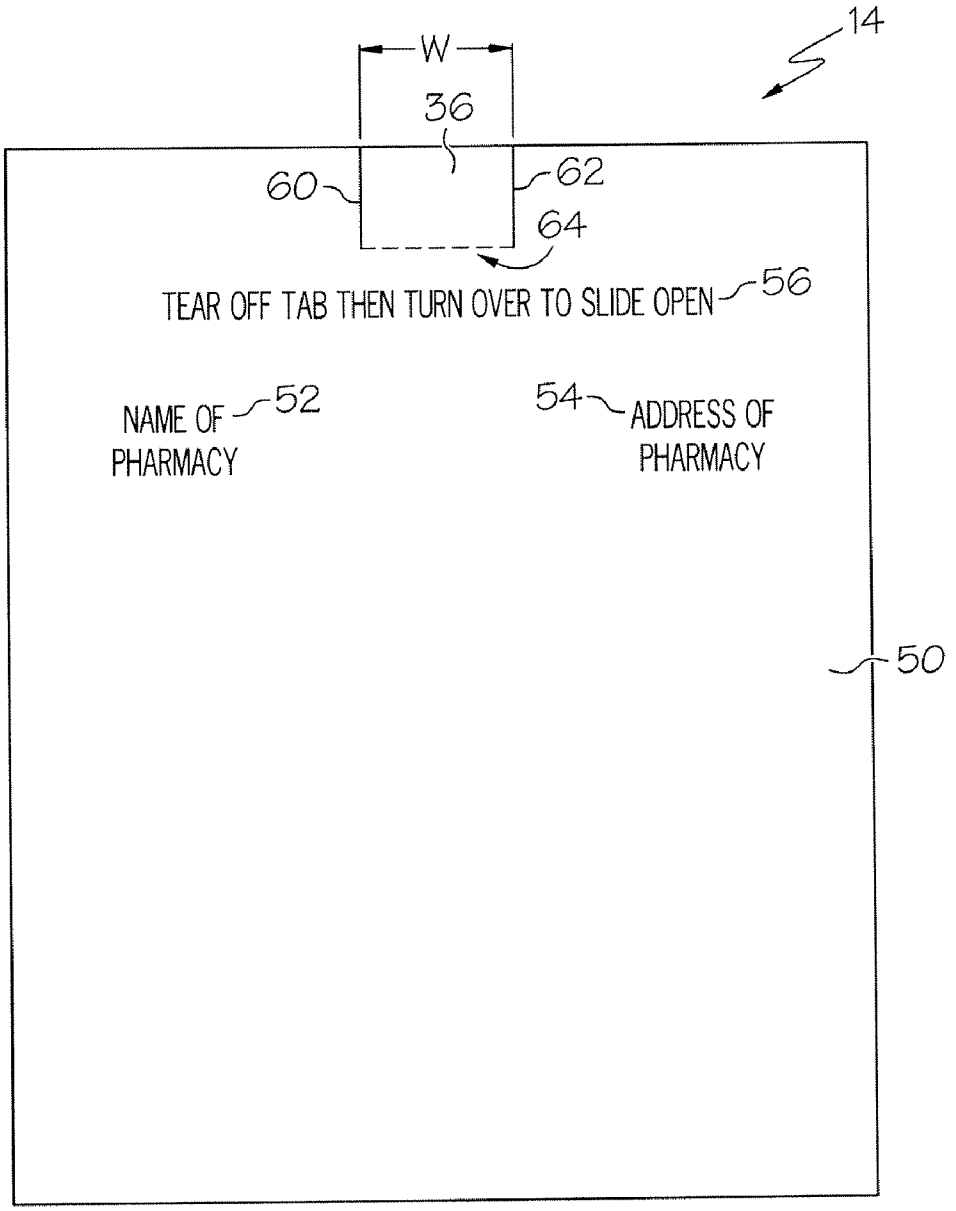

14
W
36
60
62
64
TEAR OFF TAB THEN TURN OVER TO SLIDE OPEN
56
NAME OF PHARMACY
52
54
ADDRESS OF PHARMACY
50

FIG. 2

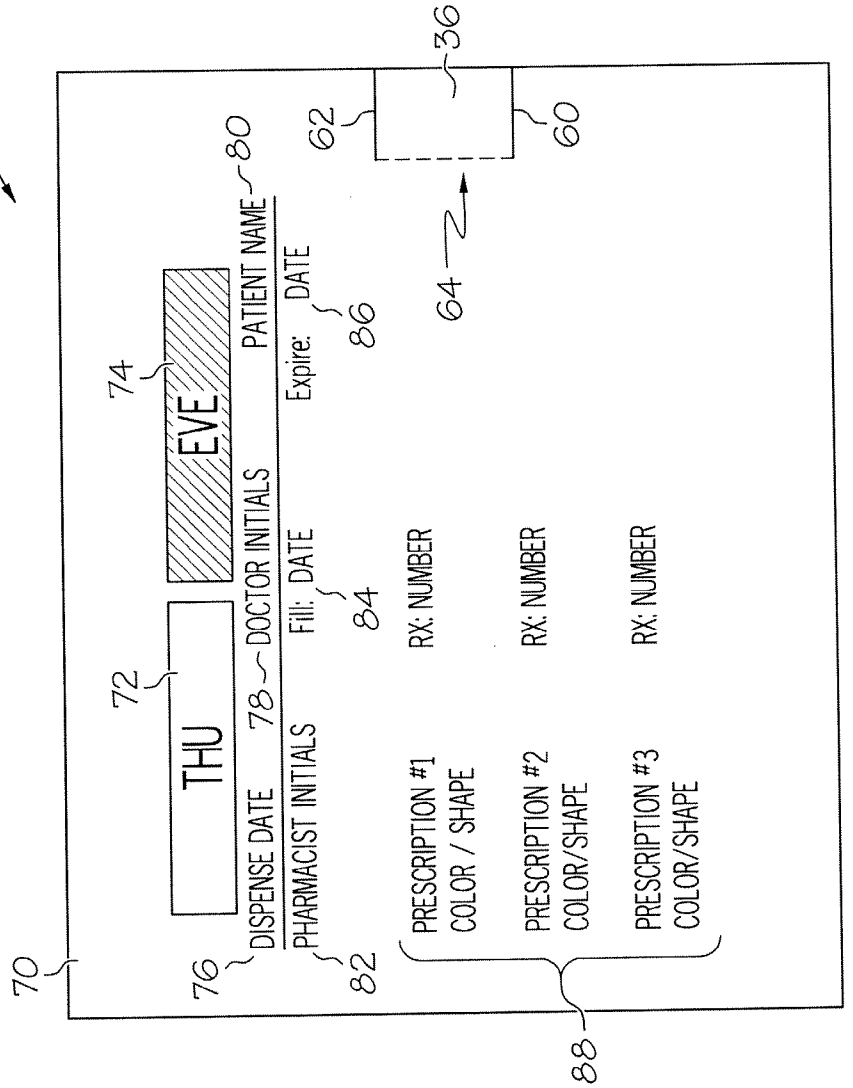

14
70
72
THU
74
EVE
76
DISPENSE DATE
78
DOCTOR INITIALS
80
PATIENT NAME
82
PHARMACIST INITIALS
84
Fill: DATE
86
Expire: DATE
88
PRESCRIPTION #1
COLOR / SHAPE
RX: NUMBER
PRESCRIPTION #2
COLOR/SHAPE
RX: NUMBER
PRESCRIPTION #3
COLOR/SHAPE
RX: NUMBER
36
60
62
64

FIG. 3

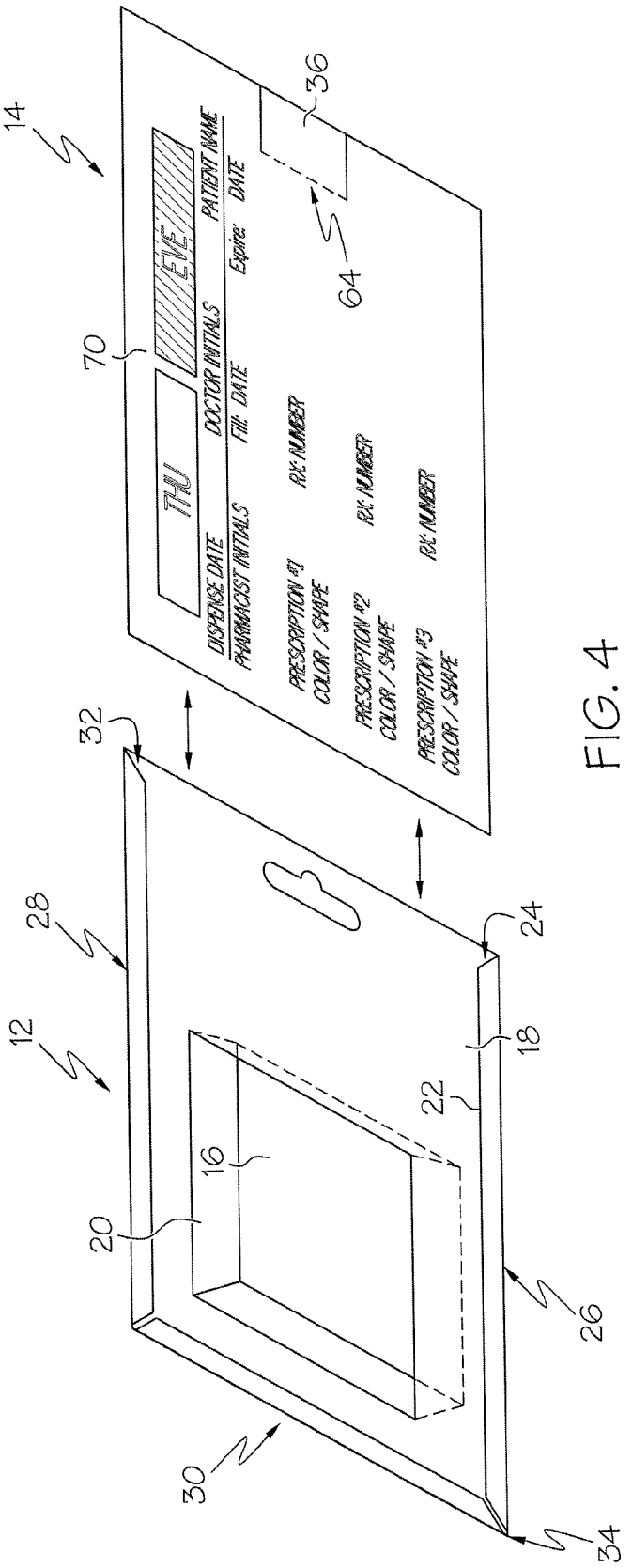

14
36
64
70
THU
EVE
PATIENT NAME
DOCTOR INITIALS
DISPENSE DATE
Expires: DATE
PHARMACIST INITIALS
Fill: DATE
PRESCRIPTION #1
COLOR / SHAPE
RX: NUMBER
PRESCRIPTION #2
COLOR / SHAPE
RX: NUMBER
PRESCRIPTION #3
COLOR / SHAPE
RX: NUMBER
32
28
24
12
18
22
16
20
26
30
34

FIG. 4

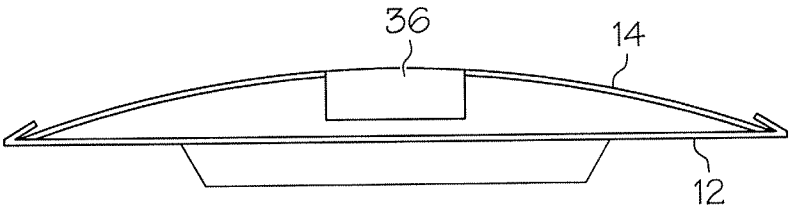


FIG. 5

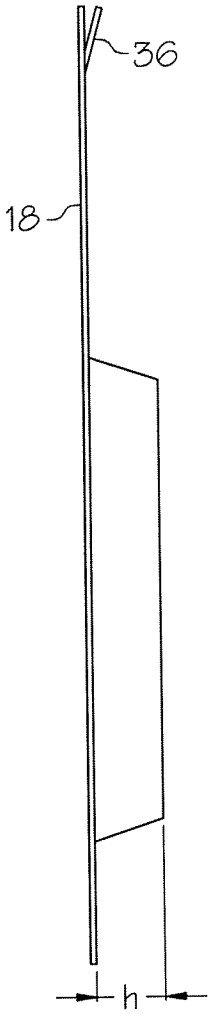


FIG. 6

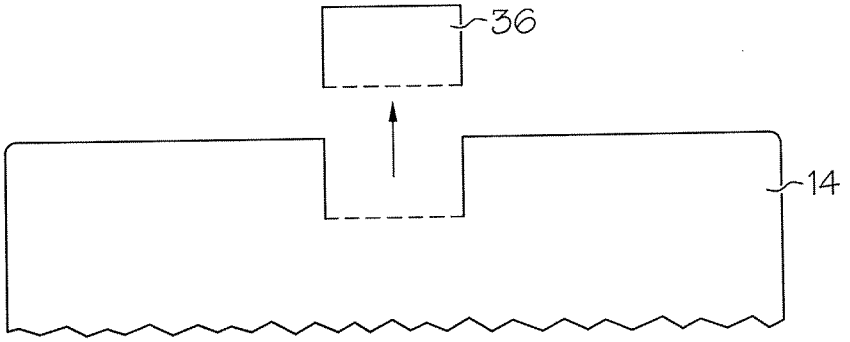


FIG. 7

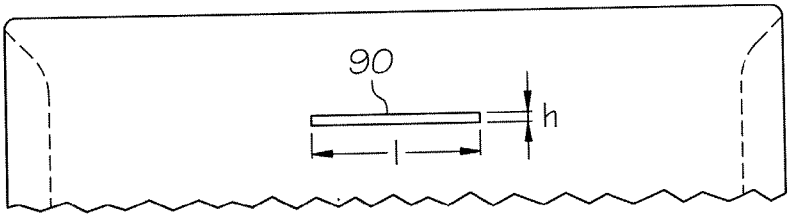


FIG. 8

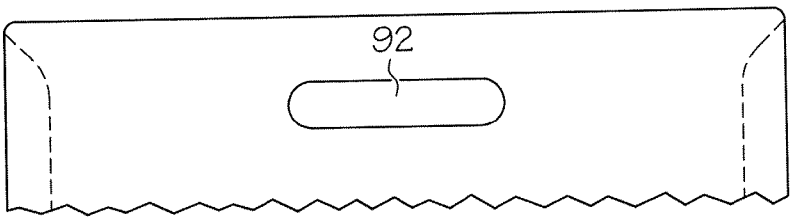


FIG. 9

MEDICINE PACKAGE

BACKGROUND AND SUMMARY OF THE INVENTION

[0001] It has been found that over 70% of individuals sixty-five years of age or older ("seniors") can mismanage their medications in some way. For instance, a senior may forget to take the medication, take too much medication, take too little medication, or take the medication at the wrong time. As seniors continue to age and the number of medications seniors take increases, it has been found that approximately 30% of seniors can end up in a hospital or nursing care environment as a direct result of medication mismanagement, also known as medication non-compliance.

[0002] Currently available off the shelf compliance packaging solutions for medications are typically designed to be used in situations where a nurse manages dispensing of the medication. Typical packaging options, even those other than the standard vial with a closeable lid, are not conducive to enable seniors to help themselves remain in compliance when reading the package and administrating the doses independently of a nurse or other caregiver. It has been found that many seniors are independent and interested in remaining independent. One aspect of remaining independent is for a senior to be able to administer medications by themselves, without the help of a nurse or other caregiver.

[0003] In one known system known as Doc-U-Dose®, color coded envelopes are filled with a medication and sealed with adhesives at the sides of the envelope. The envelope is torn open at a perforation and the medications are poured from the envelope. Administration times are set up in an attached strip of envelopes labeled morning, noon, evening, and bedtime.

[0004] In another known packaging system for medication, a package is provided which includes a foil seal which is punched through to expose a single dose of medication in a well. Such wells can be set up like a calendar for a thirty day period of time where all the wells are attached together. Morning doses can be identified by a first color and noon doses or other dosage times can be identified in additional and distinct colors.

[0005] Other known packaging systems include packages filled and sealed by a robotic machine. A plastic package is sealed on all sides and includes a perforation in the package to enable the packages to be torn open to reveal the medications. The machines seal the doses to be taken at a single time and are attached in a strip of packages and generally rolled into a cylinder and inserted into a box for medications to be taken over a thirty day period of time.

[0006] The present invention enables a senior or other person who may have difficulty using known packaging solutions to easily or to properly identify the package of medication to take and the time to take the medications. In addition, the package of the present invention can be opened by an individual with relative ease and the individual can self administer the medications. The present invention further provides a medicine package or packaging system which can accommodate from up to eight to twenty medications or more at any given time during a day. Consequently, the present invention does not require multiple packages to be used and opened at any given dosage time even if a large number of medications are required. When the medications are of a standard size, approximately eight or more medications can be considered to be a large number of medications.

[0007] Other known systems can be difficult to read or to understand the specified dose times. The present invention, however, clearly marks the day and/or the time of dosage and can indicate a specific time or a period of the day such as morning, noon, evening, or bedtime. The present invention, in particular, provides a package which is less difficult to open and to empty the contents. This is particularly important where seniors struggle with arthritis, glaucoma, or other age related problems. The present invention can therefore reduce the difficulty of compliance for seniors or other individuals who require medications on a routine basis.

[0008] The present invention also can reduce the expense and the time of preparation required to refill a medicine package if the medication has been changed. Known packages are typically sealed at the pharmacy and cannot be resealed once opened. The medicine package of the present invention, however, can be readily reopened and reclosed. This characteristic improves medication dispensing to seniors who can experience frequent changes to medication. Consequently, the closure mechanism of the present invention can reduce the time and effort to change medications. This is in contrast to current known practice where seniors who experience a medication change must either receive a new package from the pharmacy, or must remember to remove and/or add either the discontinued and/or new drug at each dosage time.

[0009] In addition known packages can be difficult to fill and to check the contents thereof once filled by the pharmacy. Many packaging systems, while reasonable for use by a senior, may not be easy to manage by a pharmacy. For instance, problems can be found related to printing the right labels on the package, filling the medications into the package, and checking the contents thereof by a pharmacist or pharmacist assistant once filled.

[0010] In one embodiment of the present invention, the medicine package includes two parts. The first part is a transparent tray, also known as a slide blister, which is typically made of a plastic, such as PVC, formed to include a well, which can be of any shape including square, rectangular, oblong, or circular. The dimensions of the well are generally smaller than the dimensions of the completed package to allow for a visible label. Wells can include varying depths depending on the desired capacity of the package. Folded edges at the side of the package on three sides, the left side, the right side, and a bottom side hold a graphic card to complete the package. An aperture at the top of the package is used to close the package.

[0011] Another part of the present invention includes a graphics card that slides along channels created by folded edges of the tray. The card is generally the dimension of the slide blister and secures the contents inside the well. Known standard retail blister graphic cards are generally secured by a staple or adhesive at the top of the package which prevents the package from being opened. The present invention, however, is sealed and the card is prevented from sliding from the slide blister by a removable or tear-off tab that can be inserted through the aperture at the top of the slide blister from the back to the front of the aperture. By tearing off the tab after being inserted through the back and being exposed at the front, the card can be removed from the slide blister to expose and to enable the contents in the well of the slide blister to be emptied. The closure device, or removable tab, in combination with the slide feature of the card engaging the channels of the blister pack, provides for a medication package which is not only reclosable but also provides various advantages for

seniors. While the closure is mechanical in nature, the package can be sealed and resealed numerous times without degrading the functionality of the package. In addition, the closure tab provides a mechanism for a senior which can be torn off when it is time to administer the medications in the package.

[0012] The present invention requires less effort to open than known medication packages. The present invention also enables the medications held therein to be easily checked both at the pharmacy and by the end user to determine that the correct medications have been placed in the package. The present invention also provides the ability to open the package and to reseal the package if necessary, without either destroying the package or reducing the effectiveness of the packaging. Likewise, the present invention can hold up to four times or more the number of medications as other known systems which reduces the number of packages to be opened at each dosage time.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] FIG. **1** illustrates a medicine package of the present invention including a tray and a card.

[0014] FIG. **2** illustrates a plan view of one side of the card.

[0015] FIG. **3** illustrates a plan view of an opposite side of the card.

[0016] FIG. **4** illustrates a perspective elevational view of a card being slid into the tray to close the package for dispensing the medications contained therein.

[0017] FIG. **5** illustrates a perspective view of the card being bent to insert a tab through an aperture of the tray.

[0018] FIG. **6** illustrates a side view of the completed medicine package including a tab being inserted through the aperture of the tray.

[0019] FIG. **7** illustrates a partial plan view of the card having a tab removed.

[0020] FIG. **8** illustrates a partial plan view of another embodiment of an aperture of the tray.

[0021] FIG. **9** illustrates a partial plan view of still another alternative embodiment of an aperture of the tray.

DETAILED DESCRIPTION OF THE DRAWINGS

[0022] FIG. **1** illustrates one embodiment of a medicine package **10** of the present invention. The medicine package **10** includes a slide blister or tray **12** made of plastic. The tray **12** is substantially transparent to reveal a card **14** which is coupled to the tray **12**.

[0023] The tray **12** includes a top portion or first portion **16** which is substantially planar and is coupled to a substantially planar bottom portion or second portion **18** through a sidewall **20**. The first portion **16**, second portion **18** and sidewall **20** define a well **21**. The bottom portion **18** terminates at an edge **22** (see FIG. **4**). The bottom portion **18** is folded upon itself to define a channel **24**. A first side **26**, a second side **28**, and a third side **30** each include folded edges which define respectively the first channel **24**, a second channel **32**, and a third channel **34**.

[0024] Returning to FIG. **1**, the card **14**, including preprinted indicia and/or graphics, is slid into the channels of the tray **12** to a location at which the bottom portion of the graphics card meets the third channel **34**. At this point the graphics card **14** can be held in place by insertion of a tab or closure device **36** which is inserted into an aperture **38** of the tray **12**. Once the graphics card **14** has been inserted into the tray **12** and the tab **36** has been inserted through the aperture **38**, the medicine package **10** creates a holding chamber **40** which can hold one or more medications, supplements, pills, or tablets. For instance, the medicine package **10** can hold one or more vitamin supplements **42**, one or more prescription medications **44** and/or one or more pain medications **46**.

[0025] Because the present invention provides a holding chamber **40** from a tray in combination with a card, the size of the holding chamber **40** can be made to hold a variety of and different types of medications. For instance the present invention can hold eight or more tablets or pills and can also hold powdered supplements or medications which are dispensed in packets. As can be seen, the holding chamber **40** is square in shape and in one embodiment is 2½" wide and 2½" long. Other sizes are also possible and include shapes such as rectangular, oval, or circular.

[0026] As further illustrated in FIG. **2**, the card **14** includes a first side **50** having alphanumeric indicia placed thereon. For instance the present invention on the first side **50** of the card **14** includes a name of a pharmacy **52** and an address of a pharmacy **54**. The card also includes the indicia of an instruction **56** which provides a procedure to open the medicine package. The medicine package can be opened by removal of or tearing off the tab **36** from the card **14** and then sliding the card **14** from the tray **12**. Because the tray **12** is transparent, the name of the pharmacy, the address of the pharmacy, and the instruction are readily seen. In addition, because the tab has been inserted through the aperture **38** to extend outwardly on the front side of the package, the tab can be removed by the user while the instruction is viewable. Additional indicia can also be included such as a trademark of the medicine package itself.

[0027] To enable removal of the tab **36**, the card **14** includes a first cut **60** and a second cut **62** which define the sides of the tab. The first cut **60** and the second cut **62** are substantially parallel to the first side **26** and second side **28** when the card is coupled to the tray. In addition, the tab includes a width W which is sized to fit within the aperture **38**. The first cut **60** and second cut **62** are cuts which go through the entire card. Because the first and second cuts extend through the card, the tab can be bent about a tear line **64**. The tear line **64** can be marked with indicia, which is illustrated in FIG. **2** as a dotted line. Other indicia are also possible. Furthermore, perforations are provided at or rear of the tear line **64** to reduce the effort required to remove the tab **36** from the remainder of the card **14**. Consequently, the tear line **64** not only provides for an indication of the bending point of the tab for insertion into the aperture **38** but also provides for reduced effort in removing the tab from the card which can be particularly useful for seniors.

[0028] FIG. **3** illustrates a second side **70** of the card **14** which is opposite the first side **50**. The second side **70** includes a plurality of indicia which can be viewed when the medicine package is placed such that the contents of the well **40** cannot be viewed. The indicia located on the second side **70** can include a day of the week **72**, a specific time or a part of a day **74**, such as morning, noon, evening, or bedtime. The indicia also can include a dispense date **76**, a doctor's initials **78** and a patient name **80**. Likewise, the indicia can further include pharmacist's initials **82**, the date of filling a prescription **84**, and a date that the prescription expires **86**. The type of information place on the card can vary depending on the needs of the pharmacist, the user, and state or federal labeling requirement.

[0029] The time of day **74** can be emphasized by a color or shading to provide additional information to the user. For instance, the morning may be one color, noon may be another color and the evening may be a third color. Color and/or shading or other emphasizing indicia may be used with the day of the week and other indicia as well, including the indicia located on the first side of the card.

[0030] The contents of the holding chamber **40** are also identified with a content list **88** which can include an identification of each of the pills, tablets, supplements, or packets held by the well. These contents can be identified not only by a prescription or RX number, but also can identify each of the contents by a form which can include a color and/or shape. For instance, the vitamin supplement **42** could be identified as having a color of yellow and an oval shape. Likewise, the prescription medication **44** can be indicated as having the colors of white and red and having a shape being oblong. In addition, each medication can include a description of the intended effect (i.e. allergy relief) and the manner of taking the medication (i.e. swallow whole, chew). Because the present invention not only identifies the RX number, but also identifies each of the included medications by a form which can include color and shape, the user can check to see whether or not the medicine package includes the proper medications.

[0031] FIG. **4** illustrates a step in the process of filling the medicine package **10**. One or more medications are placed in the well **21**. Once the well **21** has been filled with the specified number of medications, the card is slid along the first and second channels such that an end of the card contacts the third channel **34**. Because the card includes indicia of the prescriptions, including the forms of color and shape, the person dispensing the medicine into the well **21** can check the medicine with the related indicia to check whether or not the proper medications are included in the medicine package **10**. Once the card **14** is appropriately located, the card **14** can be bent away from the tray **12** as is illustrated in FIG. **5**. By bending the card **14** away from the tray **12**, the tab **36** can be bent about the tear line **64** towards the tray and inserted into the aperture **38**. It is also possible to bend the tray **12** away from the card **14** or to bend both the tray and the card simultaneously to enable the tab to be inserted into the aperture.

[0032] Once the tab has been inserted into the aperture, the tab **36** extends away from the plane of the bottom portion **18** as illustrated in FIG. **6**. Because the tab **36** extends from the plane of the bottom portion **18**, it can be grasped by a user such that the tab **36** can be detached from the card **14** as illustrated in FIG. **7** (the tray **12** is not shown). As previously described, the tab **36** is perforated along the tear line **64** to enable a more consistent tear as well as reducing the amount of effort required to remove the tab.

[0033] FIG. **6** also illustrates a height, h, of the sidewall **20**. While different heights of the sidewall can be used depending on the type of medications typically enclosed within the medicine package, it has been found that a height of approximately ⅜" provides a sufficient amount of space for the various sizes of pills, tablets, etc., typically dispensed by a pharmacist. Of course, should the medicine package be used to also dispense pre-packaged supplements and/or other medicines which can be dissolved in a liquid, the height, h, may be increased. The length and width of the well can also be adjusted appropriately as well as the overall size of the package.

[0034] FIGS. **8** and **9** illustrate alternative embodiments of the aperture **38**. In FIG. **8**, an aperture **90** is illustrated as having a rectangular shape having a length, l, and a height, h. As can be seen, the height, h, is reduced in size from that of the previously described aperture. By reducing the height, h, the dimension requires a more accurate insertion of the tab **36** into the aperture **36** but can also provide for an improved removal of the tab since the tear line of the tab can be located adjacent to a portion of the aperture **90**. FIG. **9** illustrates an aperture **92** which is similar to the previously described aperture but which does not include a portion for hanging.

[0035] Although the invention has been described in detail with reference to certain preferred embodiments, variations and modifications exist within the scope of the present invention.

1. A medicine package to hold at least one medication, comprising:

a tray, including an aperture, a bottom portion, and a top portion, the bottom portion being coupled to the top portion by a sidewall, the top portion extending laterally from the side wall and terminating at a folded edge, the folded edge defining a channel;

a card adapted to be removably coupled to the tray, the card including a removable tab, a first side and a second side, the tab positioned on the card to enable insertion of the tab in the aperture when the card is coupled to the tray, the first side and the second side of the card being marked with indicia, the indicia including an instruction, a patient name, a date, a time of day, and a content list, the content list including the name of at least one medication, the medication being identified by a name, a form, and a prescription number, wherein a portion of the indicia is located on the first side of the card and another portion of the indicia is located on the second side of the card.

2. The medicine package of claim **1**, wherein the bottom portion and the sidewall define a well, the well including a size sufficient to hold a plurality of medications.

3. The medicine package of claim **2**, wherein the size is sufficient to hold more than eight medications.

4. The medicine package of claim **3**, wherein the side wall includes a height of approximately three-eighths of an inch.

5. The medicine package of claim **1**, wherein the tab is defined on the card with a tear line including a perforation.

6. The medicine package of claim **5**, wherein the tab is further defined on the card with a first cut and a second cut, the first cut and the second cut being spaced along the perforation to enable the tab to be bent at the perforation.

7. The medicine package of claim **7**, wherein the perforation is marked with indicia to indicate the location of the tear line.

8. The medicine package of claim **1**, wherein the indicia includes the name of a pharmacy.

9. The medicine package of claim **1**, wherein the indicia includes the name of a physician.

10. The medicine package of claim **1**, wherein the time of day includes a part of a day, the part of the day including one of a time related to morning, noon, evening, bedtime, or a specific time.

11. The medicine package of claim **1**, wherein the form includes at least one of a shape and a color.

12. The medicine package of claim **1**, wherein the instruction provides a procedure to open the medicine package.

13. The medicine package of claim **12**, wherein the instruction relates to removing the tab from the card and sliding the card to open the medicine package.

14. The medicine package of claim **13**, wherein the instruction is located on the first side of the card and the remaining indicia is located on the second side of the card.

15. A method for providing a medication in a medicine package having a tray and a card, the tray including an aperture, a well, and a folded edge defining a channel, and the card including a removable tab being bendable about a tear line, the method comprising the steps of:

placing the card adjacent the tray to engage an edge of the card with the channel;

sliding the card along the tray while engaging the edge of the card with the channel to a location to enable insertion of the tab into the aperture;

bending the tab at or near the tear line;

inserting the tab into the aperture.

16. The method of claim **15**, further comprising the step of bending the card to enable insertion of the tab into the aperture.

17. The method of claim **15**, further comprising the step of bending the tray to enable insertion of the tab into the aperture.

18. A medicine package comprising:

a tray, including an aperture, a bottom portion, and a top portion, the bottom portion being coupled to the top portion by a sidewall, the top portion extending laterally from the side wall and terminating at a folded edge, the folded edge defining a channel, wherein the bottom portion and the top portion define a well, the well including a size sufficient to hold a plurality of medications; and

a card to be removably coupled to the tray, the card including a removable tab, a first side and a second side, the tab being located on the card to enable insertion of the tab in the aperture when the card is removably coupled to the tray, the tab being defined on the card with a tear line identified with a perforation and a first cut and a second cut made through the card, the first side and the second side being marked with indicia, the indicia including an instruction, a pharmacy name, a patient name, a date, a time of day, and a content list, the content list including the name of at least one medication, the medication being identified by name, form, and prescription number, wherein a portion of the indicia is located on the first side and the portion of the indicia is located on the second side of the card.

19. The medicine package of claim **18**, wherein the instruction relates to removing the tab from the card and sliding the card to open the medicine package.

20. The medicine package of claim **19**, wherein the instruction is located on the first side of the card and the patient name, date, time of day, and content list are located on the second side of the card.

* * * * *