

[54] **MEDICATION DISPENSING PACKAGE**

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[22] Filed: **May 9, 1974**

[21] Appl. No.: **468,229**

[52] U.S. Cl. **206/531; 206/534.1; 206/498**

[51] Int. Cl.² **B65D 5/54**

[58] Field of Search 206/528-540,
206/484, 498

[56] **References Cited**

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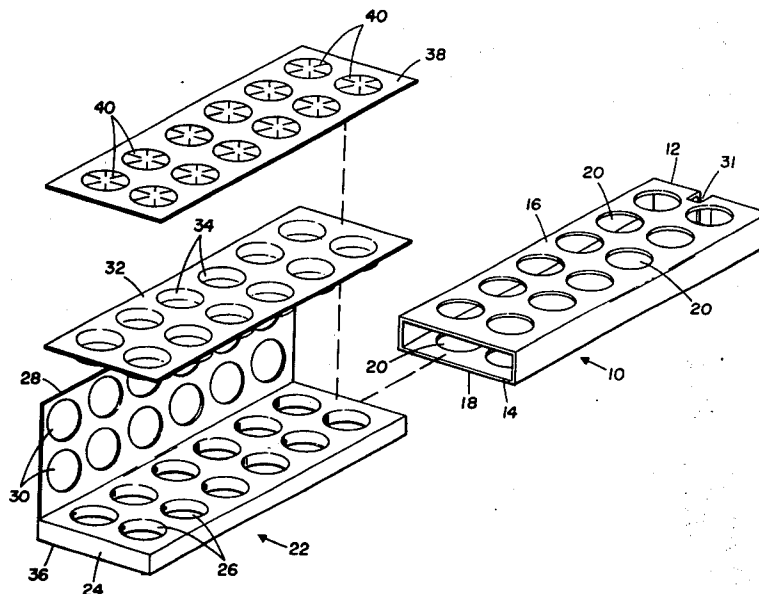
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[57]

ABSTRACT

A dispensing package for medication in the form of either tablets or capsules. The package has a reuseable carrier and a disposable insert that provides a transparent sealed pocket for each tablet or capsule. Once the pockets are filled with the medication they may be sealed and the carrier may also be sealed so that the medication can be reached only by breaking the seal on each individual pocket. The package thus serves as a means for dispensing and controlling the amount of medication that is administered.

6 Claims, 2 Drawing Figures



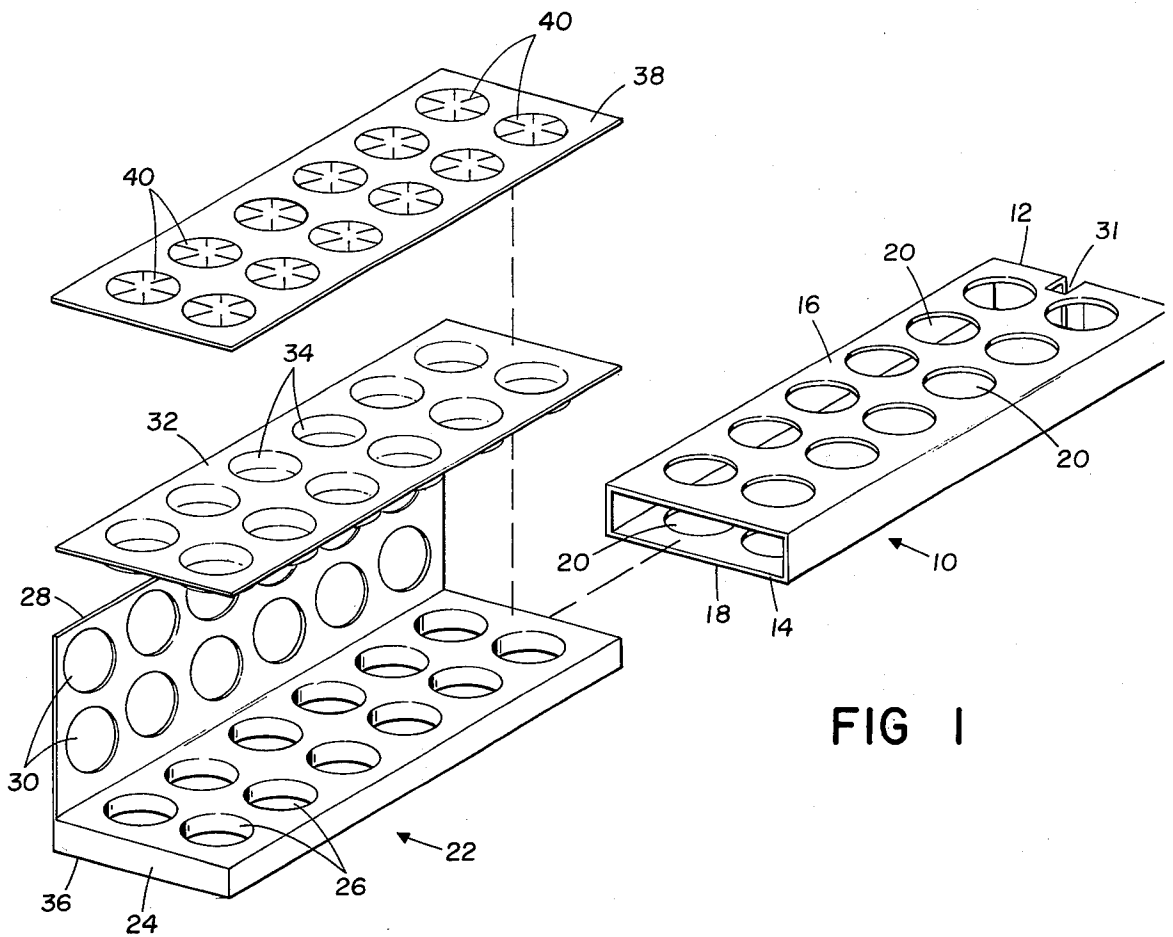


FIG 1

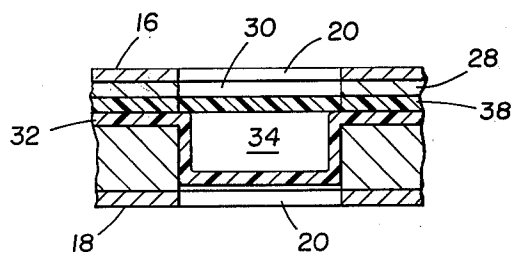


FIG 2

MEDICATION DISPENSING PACKAGE

BACKGROUND OF THE INVENTION

Because of the increased use of drugs and medications of all types, particularly those in a tablet or capsule form, there have been developed numerous containers and packages for the over-the-counter sale of non-prescription drugs. Also, there are many drugs that can be legally dispensed by a pharmacist upon the presentation of a proper authorization or prescription. Prescribed drugs are commonly purchased in bulk containers by the pharmacist, and when the prescription for a particular drug is filled, the pharmacist repackages the tablets or capsules in a smaller container, generally in bulk in a single container having a removable cap. The user is responsible for administering the tablet or capsule to himself at the prescribed time and remembering the time of administration. For patients in hospitals or nursing homes, tablets or capsules prescribed by the attending physician are dispensed by a hospital pharmacy and brought to and administered to the patient individually by a nurse or other hospital aide. Of course, a written record on the patient's chart is made indicating the drug that was administered, the quantity and the time. Such records are, of course, subject to human error not only with respect to a particular patient but with respect to the distribution of drugs within an entire hospital. There is, therefore, a need for an improved system that will minimize human error in the administration of drugs and a need for an improved dispensing package for storing and carrying drugs so that contamination of the drugs by handling will be minimized and the administration of the drugs better controlled.

SUMMARY OF THE INVENTION

The dispensing package of the invention has a reusable carrier and an insert that is partially disposable and which provides a transparent sealed pocket for each tablet or capsule. The disposable portion of the insert provides a plurality of pockets a portion of which is rupturable so that the tablet or capsule can be removed. The carrier can be sealed to prevent removal of the medication other than by rupturing an individual pocket. Once all of the medication has been dispensed, the disposable portion of the insert is discarded and the carrier can be refilled by insertion of a new, filled insert. The package thus serves as a means of carrying, dispensing and also controlling and recording the amount of medication that is administered while providing an inexpensive package since most of it is reusable.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is an exploded view in perspective and showing the individual components of the invention; and

FIG. 2 is an end sectional view of a portion of the package of the invention in its assembled condition.

DESCRIPTION OF THE PREFERRED EMBODIMENT OF THE INVENTION

The dispensing package of the invention consists of a rectangular shaped, hollow, outer shell 10 having a closed end 12 and an open end 14. The top 16 and bottom 18 each have a plurality of openings 20 which are in the same respective positions on the top 16 and bottom 18 and are therefore in alignment.

An insert indicated generally by the reference numeral 22 includes a main body 24 of the same general configuration as the shell 10 but of slightly smaller dimensions so that it will fit inside of the shell 10. The main body 24 of the insert 22 also has a plurality of openings 26 which correspond in size and position to the openings 20 in the shell 10. Insert 22 also has a cover 28 which is connected to the insert 22 along one of its edges as best seen in FIG. 1. Cover 28 is hingedly connected to the insert 22 so that it can be moved to a closed position in which it covers the top surface of the insert 22 or to an opened position which provides free access to the top surface of the insert 22. The cover 28 also has a plurality of openings 30 which correspond in size and location to the openings 26 in the insert 22. Thus, when the cover 28 is lying flat on the top of insert 22, and the insert is inserted into the shell 10, the openings 20 in the shell will be in alignment with the corresponding openings 26 and 30 in the insert 22. A cut-out portion 31 may be provided in the closed end of shell 10 to facilitate removal of the insert 22.

The shell 10 and insert 22 comprise the reusable carrier portion of the dispensing package and therefore are preferably made of a suitable material, such as plastic, which will withstand repeated handling over an indefinite period of time. The material should also be such that it will permit the cover 28 to be repeatedly opened and closed without eventual failure of the connecting portion so that during the useful life of the package the cover 28 will remain hingedly attached to the insert 22.

The package also contains a disposable, packaging component, 32 which is a one-piece component preferably formed of a thin, light-weight, transparent plastic. The disposable component 32 has a plurality of pockets 34 which correspond in size and location to the openings 26 in the insert 22. The depth of the pockets 34 is preferably slightly less than the thickness of the insert 22 so that when the disposable insert 32 is placed in the insert 22 the pockets 34 will not extend through the openings 30 beyond the bottom surface 36.

The disposable portion of the package also includes a cover 38 which is of the same basic configuration and size as the disposable packaging component 32. As best seen in FIG. 1, the cover 38 has a plurality of pie-shaped cuts 40 which are located in positions corresponding to the pockets 34 of the disposable component 32. These pie-shaped cuts 40 are made so that they do not completely join at the center and therefore provide a complete enclosure for the pockets 34 when the cover 38 is in place over the disposable component 32. However, the pie-shaped cuts 40 should be such that with the application of slight pressure, with a finger, for example, that they will separate and permit access to the pockets 34. The material of the cover 38 may be the same as that of the disposable component 32 or the cover 38 may be made of a light-weight translucent cardboard. Each of the pockets 34 thus provides an individual container for a single dosage of a particular medication. Usually this is in the form of a single tablet or capsule, but if the dosage is two capsules or tablets, the required number can be placed in each pocket 34. In use, the pockets are filled with the medication by an authorized individual, such as a pharmacist, and each of the pockets is filled with a single prescribed dose of the medication or drug. When all of the pockets 34 have been filled, the cover 38 is placed over the disposable component 32 with one of the pie-

shaped cuts in alignment with each of the pockets 34. Preferably, the cover 38 is sealed to the disposable component 32 in any suitable manner such as by use of a suitable adhesive along the outer edges of these two components. The adhesive may be of the type that is preapplied and which will adhere when the two components are joined and pressure applied. The disposable component 32 and cover 38 thus provide a complete enclosure for the medication contained in the pockets 34, and it is obvious that other than tearing or otherwise damaging the component 32 or cover 38 the only way a dose of the medication can be removed from a pocket 34 is by breaking through the pie-shaped cut 40 for that particular pocket.

The disposable unit, consisting of the component 32 and cover 38, containing a dose of the medication in each of the pockets 34, is then placed between the main body 26 of the insert 22 and its cover 28 with one of the pockets 34 extending through each of the openings 26. The cover 28 is then lowered to provide protection for the light-weight disposable component 32. The insert 22 containing the disposable unit is then placed inside of the shell 10, and the open end 14 of the shell is sealed in any suitable manner. For example, a thin paper seal can be placed over at least a portion of the open end 14 in such a manner that the insert 22 cannot be removed without breaking the seal and providing, therefore, a visible indication that the insert 22 has been removed. When the outer shell 10 and insert 22 containing the disposable unit with the medication in the pockets 34 is completely assembled and sealed, the dispensing package is complete. If desired, the shell 10 may be provided with printed times, dosage or other instructions adjacent each of the openings 20.

When an appropriate dose of the medication is to be administered, pressure is applied to one of the pockets 34 by pressure applied through an opening 20. This will force the medication through the corresponding pie-shaped cut 40. The particular pocket selected may be indicated by the printed instructions adjacent to it. The procedure is then repeated for each dosage until the entire dosage contained in a single package has been administered. The package is then returned to the pharmacist or other authorized individual who will break the seal, remove the insert 22, open the cover 28 and throw away the disposable unit which consists of the disposable component 32 and its cover 38. The package can then be refilled with a new disposable unit.

Thus, the dispensing package of the invention provides not only a reuseable carrier which will withstand repeated handling, but provides in a convenient package a way of controlling the medication dispensed. As long as the seal over the open end 14 has not been broken, a person can immediately determine how much medication has been dispensed by looking at the package. If the package is marked with times or other printed instructions for dispensing, a quick glance will immediately determine when the last medication was given. In this regard, it is obvious that the dispensing package can be made with any number of desired pockets for unit dosages, and a pharmacist, may very well have different packages for different prescriptions, each package containing a different number of unit dosages. The package of the invention also provides for better control of the administration of drugs and other medications since one can easily determine whether or not the correct amount of the required medication has been administered. If a procedure is established

whereby only an authorized pharmacist can break the seal over the open end 14, one can immediately determine whether or not there has been unauthorized access to the drugs contained in the package.

The medication package of the invention not only minimizes the possibility of both intentional or unintentional administration of drugs and thus minimizes human error in this regard, but it also minimizes handling and thus the possibility of contamination of the medication. The dispensing package of the invention does not have to be opened or manipulated in any way in order to administer a unit dosage of the medication. Also, because the disposable portion of the package is at least in part transparent, the medication can usually be identified without any manipulation merely by looking at the drug and the identification on each individual capsule that is contained in the package. Thus, the package minimizes the possibility of improper intermixing of drugs and provides added assurance that the capsules or tablets for a particular prescription are all of the exact same drug.

It will be obvious to those skilled in the art that various revisions and modifications can be made to the preferred embodiment disclosed herein without departing from the spirit and scope of the invention. It is my intention, however, that all such revisions and modifications will be included within the scope of the following claims.

I claim:

1. A re-usable dispensing package for medication in the form of tablets, capsules, or the like, said package comprising a re-usable outer shell having spaced-apart top and bottom portions each containing a plurality of openings, side portions of said shell joining said top and bottom portions to form a hollow shell open at one end, the said openings in the top portion of said shell being in substantial alignment with the openings in the bottom portion, a re-usable insert having a plurality of openings corresponding in size and relative location to the openings in the top and bottom portions of said shell, said insert being of a size so as to be slidably insertable in the open end of said shell with the openings in said insert in alignment with the openings in the top and bottom portions of said shell, a disposable packaging component having a plurality of pockets of a size and relative location corresponding to the openings in said insert, thereby providing for nesting of said packaging components in said insert when said package is assembled, each of said pockets being of a size sufficient to hold a single dose of said medication, and a thin flat cover overlying said packaging component when said package is assembled thereby to enclose said pockets, the portion of said cover overlying said pockets being breakable to provide for removal of the medication from the pockets, said packaging component and cover being easily separable from said insert to facilitate disposal of said component and cover.

2. The re-usable dispensing package of claim 1 in which said insert has a first portion hingedly connected along one edge to a second portion of the insert, said first portion of the insert having a plurality of openings corresponding to the openings in the second portion of said insert, said packaging component and its cover being positioned between said first and second portions of said insert when the package is assembled.

3. The re-useable dispensing package of claim 1 in which said packaging component and its cover are a sealed unit so that medication in said pockets can be

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removed only be breaking through said cover.

4. The re-useable dispensing package of claim 1 in which means is provided for temporarily sealing said insert containing said packaging component and its cover inside of said shell so that said seal must be broken in order to remove said carrier from said shell.

5. The re-useable package of claim 1 in which said packaging component is made of a transparent material

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so that said medication is visible from outside of said package when said package is assembled.

6. The re-useable package of claim 1 in which the breakable portions of the cover over said packaging component are each formed by a plurality of pie-shaped cuts in said cover which cuts extend toward each other, but do not join so as to enclose said pockets while permitting access to said pockets by pressure applied to said pie-shaped cuts.

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