

- [54] **INDIVIDUAL TABLET DISPENSING PACKAGE**
- [75] **Inventor: Wilbert K. Richert, North Towanda, N.Y.**
- [73] **Assignee: F. N. Burt Company, Inc., Buffalo, N.Y.**
- [22] **Filed: Jan. 4, 1971**
- [21] **Appl. No.: 103,691**
- [52] **U.S. Cl.**..... 206/42, 116/121, 221/91
- [51] **Int. Cl.**..... **B65d 83/04**
- [58] **Field of Search**..... 116/121; 206/42; 221/91

3,570,707	3/1971	Finkel.....	206/42 X
2,828,005	3/1958	Ricke.....	206/42
3,143,207	8/1964	Wagner.....	206/42
3,495,567	2/1970	Hayes et al. ....	206/42 X
3,557,747	1/1971	Rigney.....	206/42 X

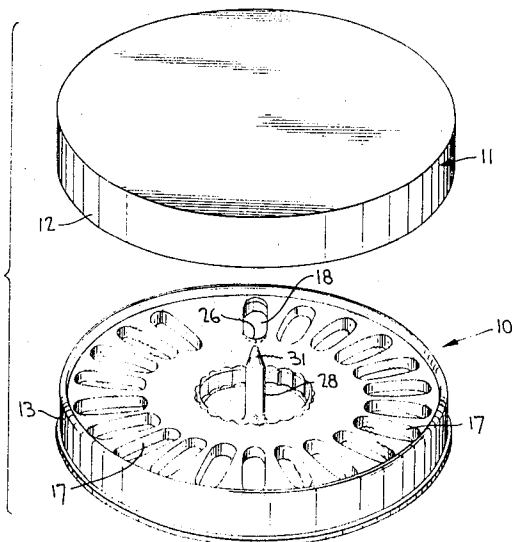
*Primary Examiner*—M. Henson Wood, Jr.  
*Assistant Examiner*—Reinhold W. Thieme  
*Attorney*—Watson, Cole, Grindle & Watson

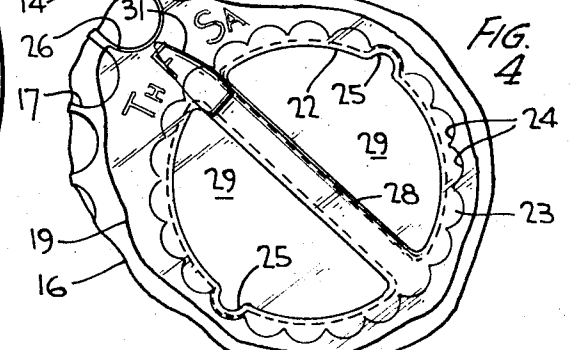
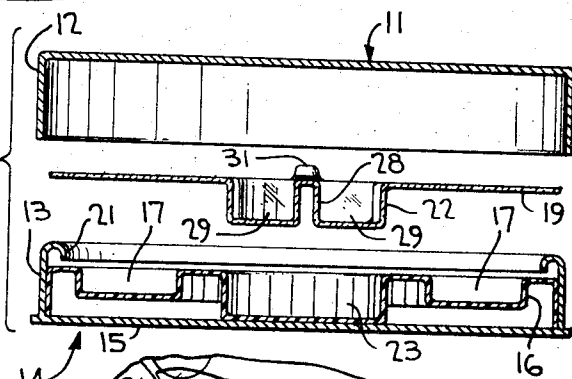
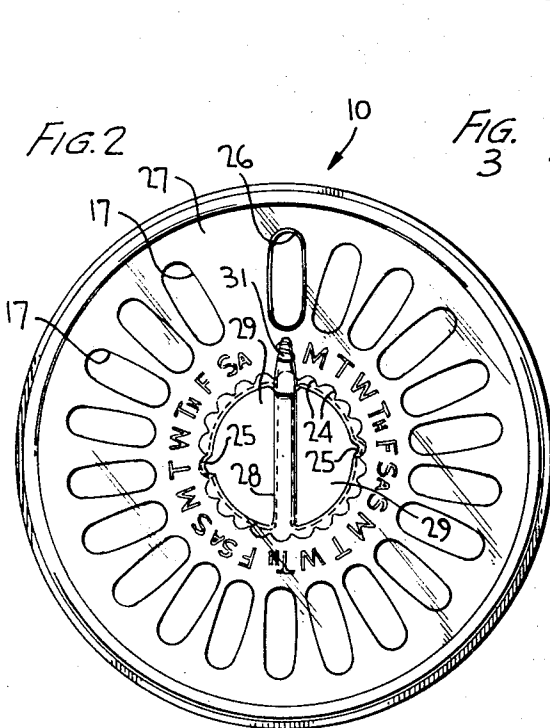
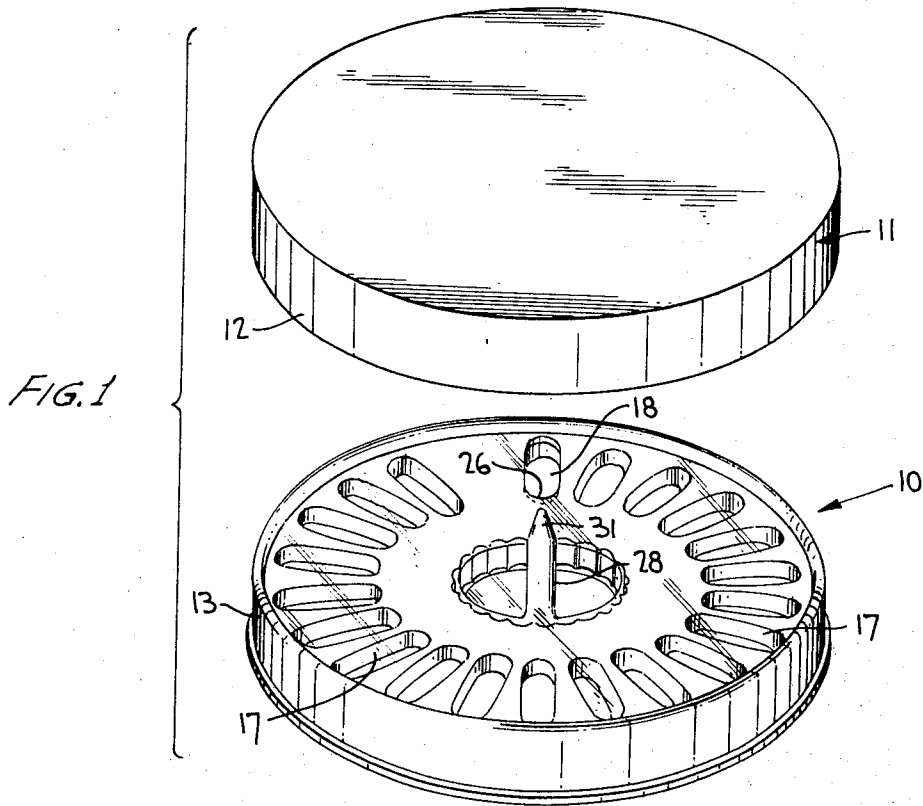
[57] **ABSTRACT**

A package capable of dispensing tablets one at a time therefrom comprises a container having a plurality of compartments for each tablet and a movable dispensing lid having an opening for overlying each compartment in sequence. The lid is retained by the container and cooperates with a central cavity therein in such a manner as to insure sequential lid movement.

**3 Claims, 4 Drawing Figures**

- [56] **References Cited**
- UNITED STATES PATENTS**
- 3,227,127 1/1966 Gayle..... 206/42 X





INVENTOR,  
WILBERT K. RICHERT  
BY Watson, Cole, Grudle & Watson  
ATTORNEYS

**INDIVIDUAL TABLET DISPENSING PACKAGE**

This invention relates generally to a dispensing package and more particularly to such a package which is capable of conveniently dispensing tablets or dosages in sequential order therefrom one at a time.

Any number of pill dispensers have been designed in the past for the purpose of assisting the patient in determining whether or not he has taken a pill or other form of medicament for the interval prescribed by this physician. Whether this interval be a matter of hours or one per day or one every other day, it is possible that the patient's memory will fail him without the use of some convenient reminder. Many of such pill dispensers are provided with a container having a number of compartments, one for each pill or capsule, and a movable lid having an opening cooperating with each such compartment in a manner as to free the pill or capsule in sequential order after a previous compartment has been emptied at a prescribed interval. However, such dispensers are oftentimes not only cumbersome in their design but require such a large number of moving parts and such a unique design assembly that the additional cost for such dispenser and its attendant awkwardness have discouraged widespread use for many prescriptive medicaments. Besides, the apertured lid which must be moved to successively open each compartment has not been designed for accuracy and easy handling during the opening of each compartment. According to the present invention the apertured lid conveniently cooperates with the multiple pill container in such a manner that it is held by a snap-in fit and is positively insured of opening only one pill compartment at a time with the use of a minimum number of moving parts which are easy to assemble and inexpensive to manufacture.

It is therefore an object of the present invention to provide a new and improved pill dispenser wherein the multicompartmented container has a central cavity therein for the reception of a central extension therewith provided on the apertured movable lid, the cavity and extension having cooperating means thereon for insuring sequential lid movement thereby opening only one compartment at a time.

Another object of the present invention is to provide such a pill dispenser wherein the cooperating means include ratchet means in the form of ratchet teeth located on the wall of the cavity and means on the wall of the lid extension cooperating successively with each of the indentations formed by such teeth upon movement of the lid.

A further object of this invention is to provide such a dispenser wherein respective ones of indentations are associated with each of the compartments so as to insure the dispensing of pills one at a time.

A still further object of the invention is to provide such a pill dispenser wherein the dispensing lid is moved by means of a bar secured thereto and located within the cavity.

A still further object of the present invention is to provide such a dispenser wherein the various compartments together with their associated teeth are located along radial lines from the vertical axis of the dispensing package, the bar together with the lid opening also being located along one of the radial lines and indicia on the lid for positively pointing out the compartment which has been opened during movement of the lid.

Other objects, advantages and novel features of the invention will become apparent from the following de-

tailed description of the invention when considered in conjunction with the accompanying drawings wherein:

FIG. 1 is an exploded perspective view showing the multi-compartmented pill container and a cover therefor in accordance with the present invention;

FIG. 2 is a top plan view of the pill container with its movable, apertured lid;

FIG. 3 is an exploded cross-sectional view of the cover, movable lid and pill container in accordance with the present invention; and

FIG. 4 is a slightly enlarged view similar to FIG. 2 clearly showing the manner in which the lid and pill container cooperate for insuring a one-at-a-time dispensing of each pill therefrom.

Turning now to the drawings wherein like reference characters refer to like and corresponding parts throughout the several views, there is shown in FIG. 1 an exploded perspective view of the pill dispensing package according to the present invention which substantially comprises a pill receptacle portion 10 and an outer cover 11 designed to conveniently cooperate with the portion 10 as its circular side wall 12 fits over the circular side wall 13 of the receptacle portion.

The pill receptacle portion 10 includes a pill container 14 (see FIG. 3) comprising side walls 13 and a bottom wall 15 to which a multi-compartmented portion 16 is attached. The portion 16 is, in this embodiment, shown as having 21 individual compartments 17, each designed for the reception of a single pill, capsule, tablet 18, and the like, only one of which is shown in FIG. 1. In FIG. 2, it can be seen that each compartment 17 is provided adjacent thereto with an abbreviation of each day of the week so that for 21 compartments or cavities a supply of 3 weeks' dosage may be provided for the patient. Of course, any number of compartments with associated interval markings are possible for the present design so as to facilitate other than the once daily dosage shown by the drawings.

The pill receptacle portion 10 also includes a dispensing lid 19 of disc-like shape with its upper surface being wholly flat and being sufficiently pliable so that it can be simply snapped in beneath the peripheral inwardly turned lip 21 of side wall 13. The lid 19 may be stamped or otherwise formed from a sheet of polyethylene or similar material as having a central extension 22 with an outer diameter slightly less than the inner diameter of a central cavity 23 formed in the multicompartmented portion 16, as clearly shown in FIG. 3 of the drawings.

In FIG. 4, it can be seen that the side wall of cavity 23 is undulated in its entirety along the periphery thereof so as to form a series of ratchet-like indentations 24. On the other hand, the peripheral wall of the central extension 22 is provided with a pair of oppositely related protrusions 25 extending outwardly for mating with a pair of associated indentations 24. In this way, it can be seen that the dispensing lid 19 is movable about a vertical axis with respect to the container 14 and can be positively maintained in most any position with respect thereto by means of the protrusions 25.

Lid 19 is also provided with an opening 26 having a dimension similar to that of each compartment 17 and located with respect thereto so as to directly overlie and thereby open each compartment as the lid 19 is moved in sequential order about its vertical axis. It should be noted that each of the 21 compartments 17 lies along a radial line with respect to the container ver-

tical axis as well as each indentation 24 which also lies along the same vertical line with its associated compartment. However, one indentation 24 in excess of the number of compartments 17 is provided since no compartment is located on the surface of portion 27 shown in FIG. 22. In this way, opening 26 of the dispensing lid may be moved to overlie such portion 27 when it is desired to close all twenty-one compartments as when each compartment is filled with a tablet or capsule.

In order to facilitate easy rotational movement of the dispensing lid 19 it can be seen that a bar-like member 28 is provided which extends transversely across the circular central extension 22 as an integral part of both the side wall and bottom wall thereof. Accordingly, a finger insert 29 is provided on opposite sides of the member 28 so that the user's thumb and forefinger, for example, may be inserted therein as the bar 28 is grasped on opposite sides during a turning motion for the dispensing lid.

From the foregoing, it can be seen that simple and reliable yet wholly inexpensive pill dispensing package has been devised making use of a minimum number of moving parts for a widespread and effective use. For example, the dispensing lid 19 may be stamped from a sheet of polyethylene or other similar inexpensive thermo-formable material and the multi-compartmented portion 16 of the container may be easily stamped from a sheet of polystyrene or the like, while the outer cover 11, the side wall 13 and the bottom wall 15 of the container may be simply formed of paperboard or a combination of paperboard and paper if desired.

The empty dispensing package may be first delivered to the pharmacist, who will thereafter insert the desired number of pills in the container compartments and simply snap on the dispensing lid 19 so that its plane horizontal section will be made to overlie the top surface of the portion 16 and be snugly retained thereon as the peripheral edge of the lid is made to engage beneath the inwardly peripheral lip 21. In order to insure that all the tablets will be each maintained in their intended compartment, the supplier should move the dispensing lid so that its opening 26 will be made to overlie the blank portion 27 of the container. The outer cover 11 may be thereafter placed over the pill receptacle portion 10 and delivered to the patient.

The patient then simply removes the cover 11 and moves the dispensing lid 19 clockwise one notch so that its opening 26 will be made to completely overlie the first compartment 17 located at the 12 o'clock position seen in FIGS. 1 and 2 of the drawings. The pill, or tablet, or dosage 18 may then be simply removed by moving the receptacle portion 10 toward one side in the normal manner. Since each indentation 24 is associated with a respective one of its compartments 17, it can be seen that the opening 26 will be made to directly overlie each successive compartment as the lid is turned by one notch or indentation since the opening 26 also lies on a radial line from the vertical axis of the container. The slight protrusions 25 on each side wall of the cen-

tral extension 22 simply cooperate with respective ones of the indentations and, because of the pliability of the dispensing lid, these protrusions 25 are permitted to be conveniently and easily moved from one indentation to another upon movement of the dispensing lid.

As pointed out hereinabove, movement of the lid 19 is facilitated by means of the bar-like member 28 which is located wholly within the cavity 23 and is disposed transversely of the peripheral side wall of extension 22.

For the sake of added convenience, indicia means in the form of an embossed pointer 31 is provided during the stamping process of the dispensing lid and is disposed as an extension of the bar 28 pointing toward the opening 26. In such a way, the user is assured that the opening 26 is at the location desired and has not been inadvertently moved. Also, with the pointer 31 calling out each day of the week associated with each compartment, the user will be able to positively maintained a visual record of his dialy dosage.

Obviously many modifications and variations of the present invention are possible in the light of the above teachings. It is therefore to be understood that within the scope of the appended claims the invention may be practiced otherwise than as specifically described.

What is claimed is:

1. A package capable of dispensing tablets one-at-a-time therefrom comprising: A container having a plurality of compartments therein for the reception of individual tablets, said container having a central cavity defined by a depending circular wall; ratchet means including ratchet teeth forming a plurality of successive indentations located on said depending wall; a wholly flat dispensing lid secured to said container for rotation with respect thereto, said lid having an opening therein overlying each of said compartments in sequence upon rotation of said lid, and said lid having a central cavity defined by a depending circular wall unitary with said lid lying adjacent and inwardly of said container circular wall; at least one protrusion on said lid circular wall cooperating successively with each one of said indentations thereby insuring positive sequential lid rotation; and a bar-like member extending along the diameter of said lid circular wall and connected thereto at its opposite ends, said bar-like member facilitating rotational movement of said lid as said bar-like member is grasped on opposite sides thereof by an operator.

2. The package according to claim 1 wherein respective ones of said indentations are associated with each of said compartments.

3. The package according to claim 1 wherein said compartments together with their associated indentations are located along radial lines from the vertical axis of the package, said bar together with said lid opening also being located along one of said radial lines, and indicia means on said lid for positively indicating the compartment which has been opened by said lid opening.

\* \* \* \* \*