Feb. 14, 1967 J. W. BALLARD 3,303,927

DISPENSING PACKAGE FOR MEDICATION

Filed Aug. 3, 1964

FIG. 1

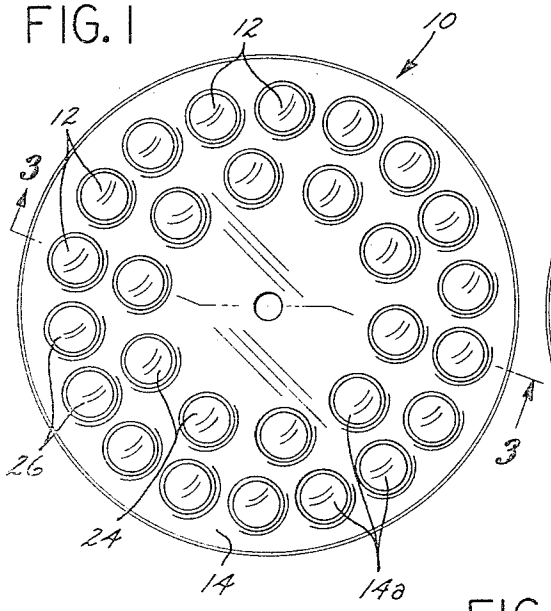


FIG. 2

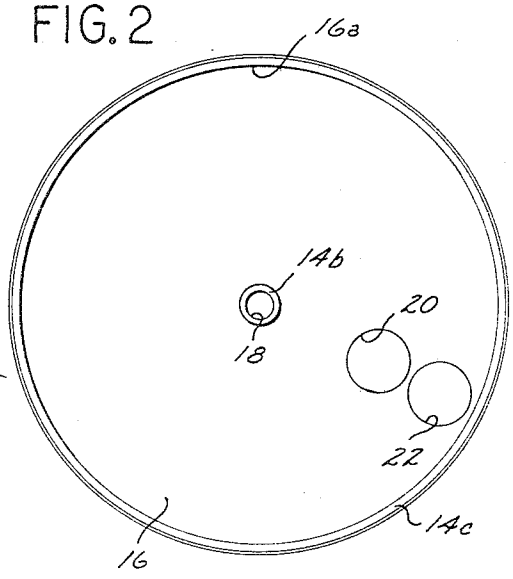


FIG. 3

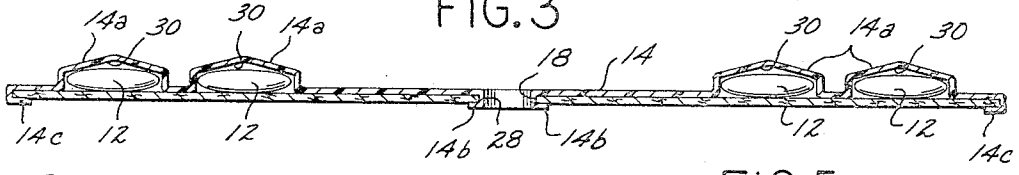


FIG. 4

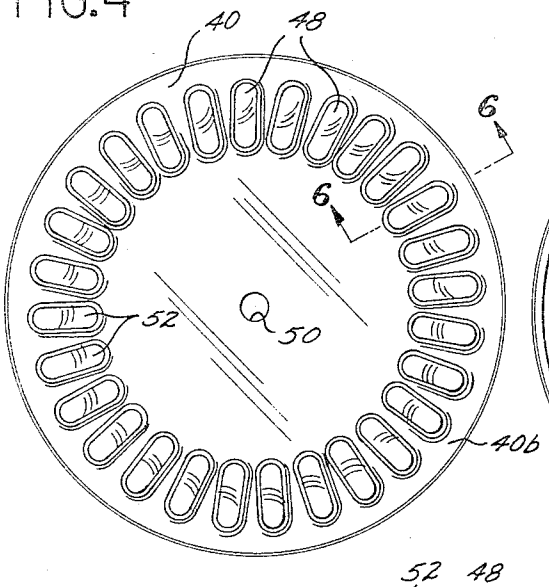


FIG. 5

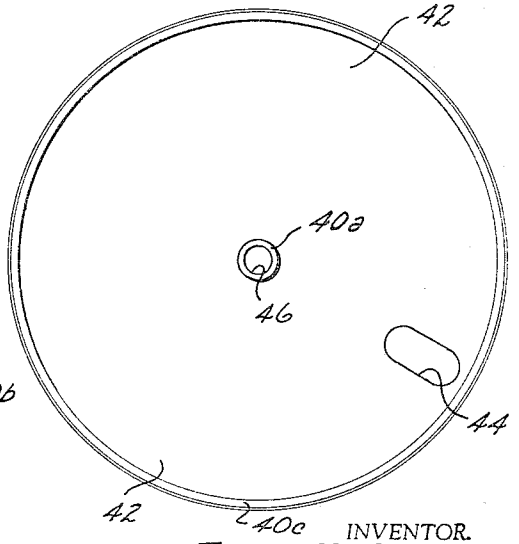
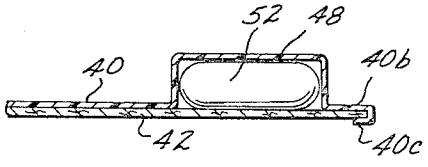


FIG. 6



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DISPENSING PACKAGE FOR MEDICATION

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The present invention relates generally to dispensing packages for medication, and more particularly to means for storing and dispensing medication in solid form.

Most solid form medications, including vitamin and weight control tablets, capsules and pills, are packaged in small bottles or other containers for use by the ultimate consumer. That is, when a patient is given the prescribed solid form medication, it is generally merely put into a bottle or into a metal or cardboard carton having suitable cover means. The patient is required to open the container and to shake one or more of the capsules or pills therefrom. Frequently, many such capsules or pills are inadvertently poured from the container, thereby creating considerable additional work and causing the inadvertently dispensed pills to become dirty with foreign matter.

It has been realized for some time that it would be extremely advantageous to provide a package for solid form medications which can serve to store the capsules or pills when not in use, and to substantially automatically dispense such capsules and pills individually or in the proper quantity when desired. Also, for certain types of medications, as for instance vitamins and weight control tablets, it is necessary for the patient to take such medication at regular prescribed intervals of time. Such dispensing package, it was believed, should also be usable by the patient to better control the timing and use of the medication. That is, it is believed that by having a dispenser of predetermined construction, the periodicity of the patient's requirements for medication can be more directly controlled and made known to the patient.

It is an object of the present invention to provide a package for solid medication which is capable of storing capsules, tablets, pills and the like, and which is operable to dispense such medication as required.

Another object of the present invention is to provide a dispensing package for solid form medication as characterized above which enables the user of the medication to tell at a glance the quantity of capsules, pills and the like within the package.

Another object of the present invention is to provide a dispensing package for solid form medication as characterized above which is relatively compact and easy to use.

A further object of the present invention is to provide a dispensing package as characterized above which is sanitary and completely enclosed for proper protection of the medication.

A still further object of the present invention is to provide a dispensing package for solid form medication as characterized above which is simple and inexpensive to manufacture, and which is rugged and dependable in operation.

The novel features which I consider characteristic of my invention are set forth with particularity in the appended claims. The device itself, however, both as to its organization and mode of operation, together with additional objects and advantages thereof, will best be understood from the following description of specific embodiments when read in connection with the accompanying drawing, in which:

FIGURE 1 is a top plan view of a first embodiment of the present invention;

FIGURE 2 is a bottom plan view of the first embodiment shown in FIGURE 1;

FIGURE 3 is a sectional view of the said first embodiment taken substantially along line 3—3 of FIGURE 1;

FIGURE 4 is a top plan view of a second embodiment of the present invention;

FIGURE 5 is a bottom plan view thereof; and

FIGURE 6 is a fragmentary sectional view of the second embodiment shown in FIGURE 4, taken substantially along line 6—6 of FIGURE 4.

Like reference characters indicate corresponding parts throughout the several views of the drawings.

Referring to FIGURE 1 of the drawings, there is shown therein a first embodiment of the present invention. Such embodiment is a package identified generally with the numeral **10** wherein solid form medicaton in the form of pills or capsules **12** are stored. Within the context of the present invention, solid form medication is intended to include weight control tablets, vitamin pills, salt tablets, and any other type of capsules, tablets or pills to be consumed for reasons of health and well-being.

The dispensing package **10** comprises a pair of relatively rotatable circular discs **14** and **16**, the first of which is preferably formed of transparent material, while the second thereof is formed of any inexpensive sheet material, such as cardboard, plastic or lightweight metal. Disc **16** is generally circular in construction and is formed with a centrally located through opening **18**. Also, as shown most clearly in FIGURE 2 of the drawings, disc **16** is formed with a pair of through openings **20** and **22** located near the outer periphery or marginal edge **16***a*.

As will hereinafter become readily apparent to those persons skilled in the art, the reverse side of disc **16** affords space whereon instructions, directions or any other information can be applied for the proper administration or use of the medication to be contained and dispensed by the package **10**.

Disc **14** is formed of transparent plastic material in any desired manner as by vacuum forming and the like. This disc is provided with a plurality of deformations **14***a* arranged in a pair of circles **24** and **26**, each of which has a given constant radius of location from the axis of relative rotation of the discs **14** and **16**. In fact, the circle **24** of deformations **14***a* is provided with the same radius from the axis of rotation as the opening **20** in disc **16**. In like manner, the radius for circle **26** is the same as the radius used for locating through opening **22** in disc **16**.

As shown most clearly in FIGURE 3 of the drawings, the disc **14** is rotatably mounted on disc **16** in any appropriate manner such as by use of grommets (not shown) or the like. FIGURE 3 shows disc **14** provided with a centrally located opening **28**, the material **14***b* around such opening being deformed or reshaped to provide an annular flange which engages the disc **16** adjacent the opening **18** therein. By forming disc **14** of plastic material which is relatively stiff or firm, it is possible to provide the flange **14***b* without the need for extra auxiliary means such as grommets. In any event, however, the means for attaching disc **14** to disc **16** must be such as to permit free and easy relative rotation therebetween.

The outer periphery of disc **14** is reversely bent to provide a continuous flange **14***c* for engaging or gripping the marginal edge **16***a* of disc **16**. This arrangement effectively closes the entire package to render the latter more effective in retaining the solid medication and in keeping such medication free of dirt and other foreign materials.

The solid medication **12** is positioned individually within the deformations **14***a*, each of the latter cooperating with the disc **16** to form a receptacle **30** for the retention of such medication. When it is desired to dispense one of the capsules, it is merely necessary to align one

of the deformations **14***a* with the appropriate one of the through openings **20** and **22**. Due to the offset arrangement of the deformations **14***a* in the several circles **24** and **26**, even though the through openings **20** and **22** are radially aligned on the disc **16** only one such opening can be aligned with a given deformation at a particular time. Thus, the arrangement shown permits the medication to be dispensed individually and selectively as desired.

It is contemplated within the scope of the present invention that substantially any member of circles of deformations **14***a* may be employed along with the corresponding number of through openings in the disc **16**. Also, the arrangement of such deformations and through openings is merely a matter of choice since the various openings can be angularly disposed around the disc **16** as desired and the deformations **14***a* can likewise be positioned in any particular manner.

The embodiment shown in FIGURES 4, 5 and 6 comprises two relatively rotatable discs **40** and **42**. Similar to the above first embodiment, the disc **42** is formed with a through opening **44** through which the solid medication is to be despensed, and with a centrally located through opening **46**. Such disc **42** may be formed of any appropriate material as above explained with respect to disc **16**, such as cardboard, plastic or thin lightweight metal.

Disc **40** is formed of transparent material and is provided with a plurality of deformations **48** for receiving the particular type and shape of capsules, pills or tablets. A central through opening **50** is also provided in disc **40**, the material of disc **40** adjacent said central opening being used to provide an annular centrally located flange **14***a* for retaining the discs **40** and **42** in relative rotational engagement.

The outer periphery of disc **40**, as at **40***b*, is formed with a continuous depending flange **40***c* which engages or partially encircles the marginal edge of disc **42**. This arrangement, of course, ensures that the medication within the subject package will remain dirt free and in a sanitary condition.

As above explained with respect to the first embodiment of this invention, the solid form medication **52** within the deformations **48** of disc **40** are dispensed from the package merely by alignment of the appropriate one of the deformations with the through opening **44** in disc **42**. When this occurs, the particular capsule, tablet or pill falls through opening **44**, and is then usable by the patient in the prescribed manner.

The reverse side of disc **42** may be imprinted with any appropriate information, such as the chemical formulation of the particular medication, including vitamins and weight reducing tablets, or it may be imprinted with instructions or advertising information of the pharmaceutical house or the doctor prescribing the medication.

It is thus seen that the present invention provides a dispensing package wherein solid form medication is stored in a relatively sanitary and dirt-free condition. Also, such package is usable for dispensing such medication such that the individual capsules, tablets or pills are individually removed from the package.

Although I have shown and described certain specific embodiments of my invention, I am fully aware that many modifications thereof are possible. My invention, therefore, is not to be restricted except insofar as is necessitated by the prior art and by the spirit of the appended claims.

I claim:

1. A dispensing package for solid form medication comprising in combination, a flat disc formed with a centrally located through circular opening, a circular peripheral outer edge, and a hole offset from said opening and of such size as to pass said medication, said opening and said circular edge being co-axially arranged, a base of transparent plastic material adjacent said disc and formed with a plurality of deformations extending away from said disc and being of such size as to individually retain said medication, and means for rotating said disc on said base and for effecting sealing engagement therebetween comprising a central portion of said plastic base extending through said opening in said disc and reversely bent about said disc thereat to simultaneously provide a rotational connection and seal therebetween and a peripheral portion of said plastic base reversely bent about the peripheral outer edge of said disc to simultaneously provide a rotational connection and seal therebetween, said central rotational connection preventing substantial radial relative movement between said disc and said base to thereby prevent binding of the peripheral portion of said base and the peripheral outer edge of said disc, whereby said disc can be freely rotated on said base to permit said medication to pass from said deformations through said hole in said disc.

2. A dispensing package for solid form medication according to claim **1**, wherein said central portion of said plastic base extends through said opening in said disc and further abuts against the edge of said disc at said central opening to prevent radial relative movement between said disc and said plastic member.

3. A dispensing package for solid form medication according to claim **2**, wherein both the central portion and said peripheral portion of said plastic base are caused to sealingly grip the respective central and peripheral edge of said disc to thereby effectively seal said package from ingress of foreign material.

References Cited by the Examiner

UNITED STATES PATENTS

2,351,815	6/1944	Jensen	206—17
2,474,639	6/1949	Shprentz	206—42
3,073,433	1/1963	Tapper	206—42
3,143,207	8/1964	Wagner	206—42
3,182,789	5/1965	Sparks	206—42

FOREIGN PATENTS

1,030,228	3/1953	France.
1,125,126	7/1956	France.
578,736	7/1946	Great Britain.

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