

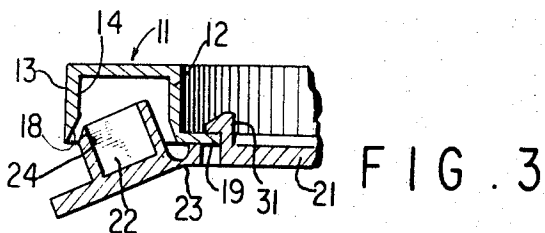
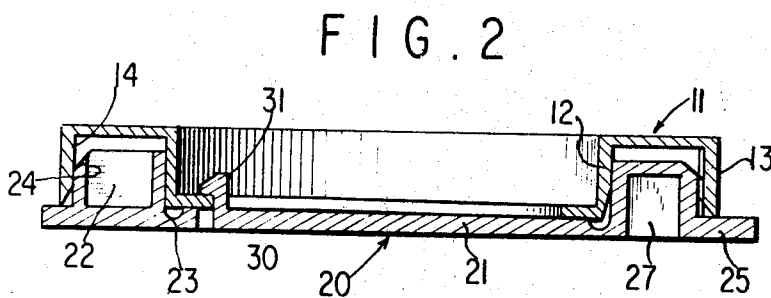
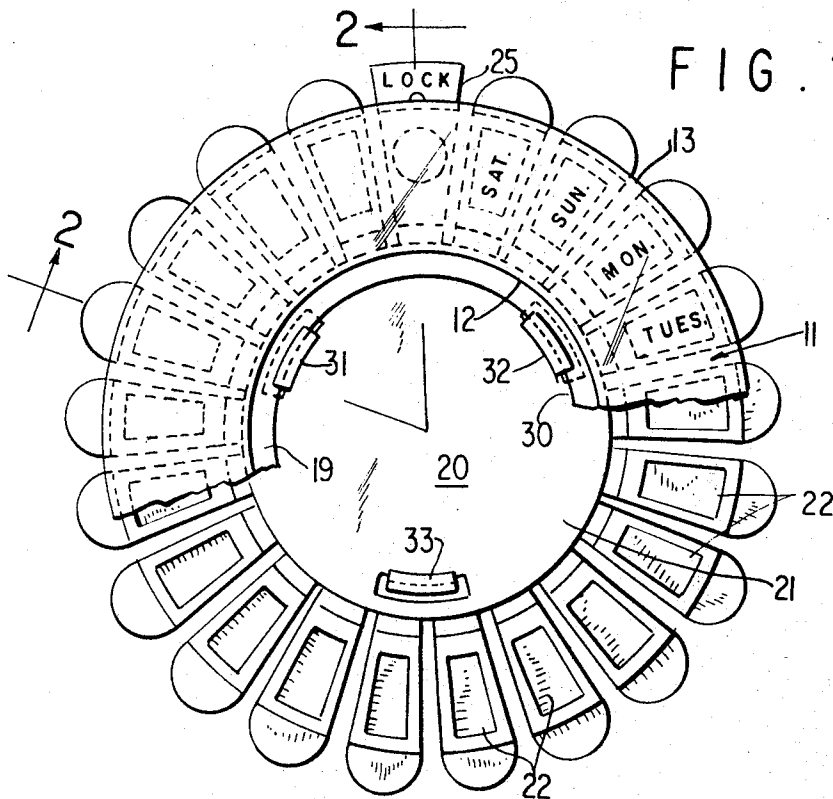
June 17, 1969

D. HALLERBACH
DISPENSING CONTAINER

3,450,252

Filed April 17, 1968

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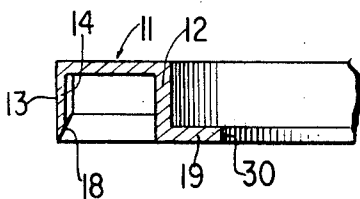
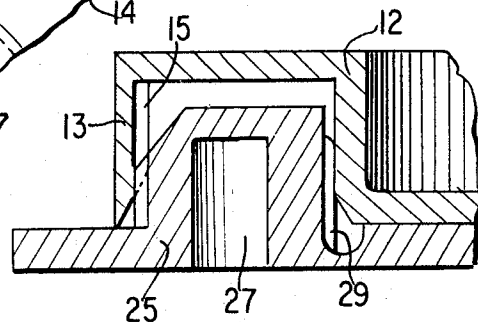
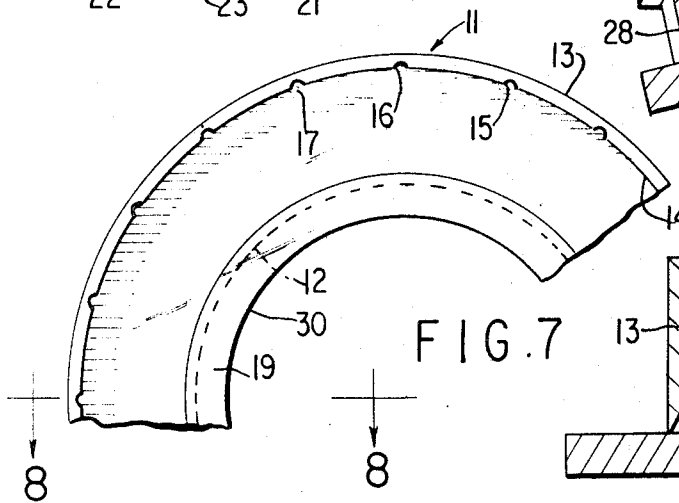
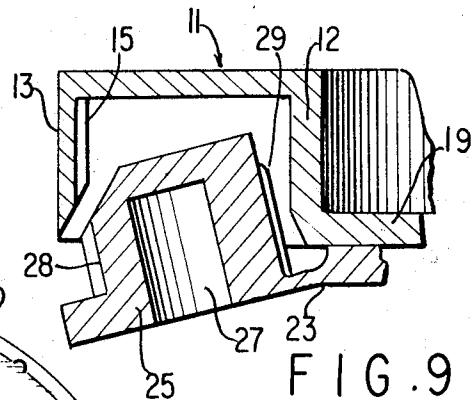
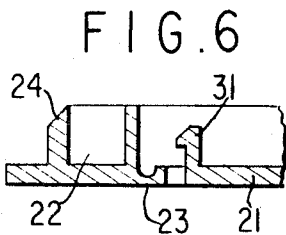
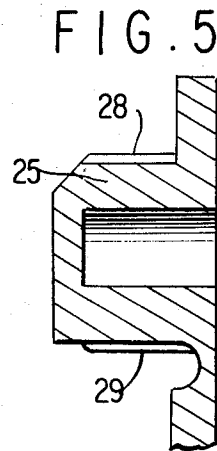
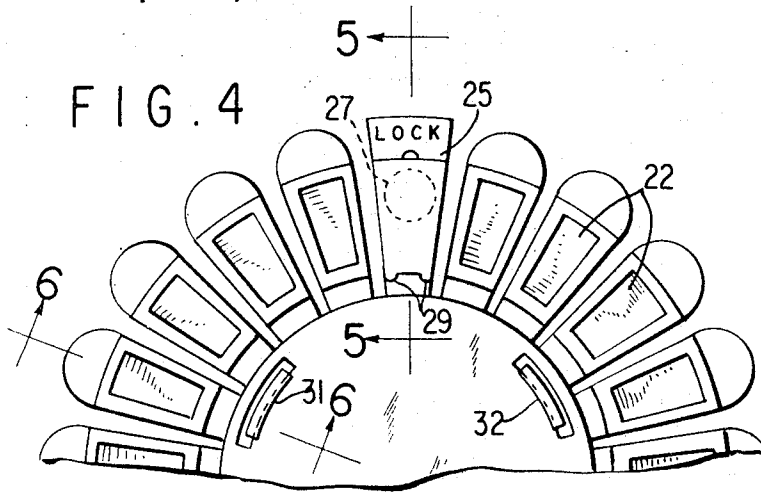
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DISPENSING CONTAINER

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U.S. Cl. 206—42

5 Claims

ABSTRACT OF THE DISCLOSURE

A circular pill box comprising a cover and pill-holding base member of molded construction having a plurality of tabs radially extending from the base, each having a cavity adapted to hold a pill or similar object and one indexing and locking tab which permits the cover member to be rotated to a fixed position with regard to indexing means and thereafter locked in place.

This invention relates to a new pill box having a plurality of individual tabs having cavities adapted to hold small objects such as pills and having indices identifying the individual pill-holding units and locking means whereby the indices may be set with respect to any particular pill-holding tab and thereafter held in place while the cavities may be emptied of their contents.

With the advent and wide usage of birth control pills which must be started on a certain day of the month and continued thereafter for a number of predetermined additional days, a demand has arisen for inexpensive, attractive, convenient, and safe containers for holding and dispensing the birth control pills in a predetermined and consistent manner. The new dispensing container of the present invention fulfills these objects.

Probably the most pertinent prior art showing a similar device is my own U.S. Patent 3,288,277 which issued on Nov. 29, 1966. Although the dispensing container of the present invention bears a superficial resemblance to the container disclosed in my patent, there are a number of important distinctions which will be seen from the following description. In brief, however, the dispensing container of the present invention differs from the earlier dispenser of my previous patent by having a cover member that is adapted to turn about the central axis of the base member of the container and by having one indexing and locking lug which can be disengaged while the cover member is turned and thereafter locked in place to prevent further turning of the cover member until it is desired by releasing the locking lug.

In order that the invention may be more clearly understood, reference is made to the accompanying drawings in which:

FIGURE 1 is a plan view of the container with half of the cover broken away;

FIGURE 2 is a cross sectional view in elevation of the container taken along the line 2—2 of FIGURE 1;

FIGURE 3 is a cross sectional view in elevation through one of the pill-holding compartments of the dispenser when the unit is partly opened as when a pill is to be removed therefrom;

FIGURE 4 is a plan view of a section of the lower half of the container looking downwardly from the top;

FIGURE 5 is a cross sectional view in elevation of the indexing and locking tab of the container taken along the line 5—5 of FIGURE 4;

FIGURE 6 is a cross sectional view in elevation of one of the pill-holding units of the lower half of the container taken along the line 6—6 of FIGURE 5;

FIGURE 7 is a plan view of a section of the upper half of the container looking upwardly from the bottom;

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FIGURE 8 is a partial cross sectional view of the annular cover member looking along the line 8—8 of FIGURE 7;

FIGURE 9 is a cross sectional view of the indexing and locking tab partially opened to permit the cover member to turn; and

FIGURE 10 is a cross sectional view in elevation of the indexing and locking tab in place.

Referring again to the drawings, it may be seen that the improved dispensing container of the present invention includes a top member 11 which is an annular section with the lower part of the annulus open having inner side walls 12 and outer side walls 13. An inwardly extending edge 19 extends from the inner annular wall 12 of the cover as also shown in FIGURE 8. The center section of the cover may be open.

The interior face 14 of the side wall 13 has a number of spaced indexing grooves 15, 16, and 17 as shown in FIGURE 7. The outer rim 13 of the annular cover member is also provided with an inwardly sloping chamfered edge 18 as may be seen in FIGURE 8.

Spaced markings which may be molded or printed on the cover of the container as indicated in FIGURE 1 may indicate the day of the week or some other time that needs to be considered in removing pills from the container. The number and spacing of such markings will, of course, correspond with the number of pill-holding cavities in the lower half of the container.

The lower half of the container shown in plan view in FIGURE 1 and in partially plan view in FIGURE 4 consists of a one-piece molding of a plastic material of the kind hereinafter described. This bottom member 20, FIGURE 2, comprises a thin disc-like interior circular section 21 having a plurality of pill-holding units 22 extending outwardly and radially therefrom. The number of these tabs may be varied but may conveniently be equal to the number of birth control tablets that are intended to be administered in one month. The construction of these tab-like pill-holding units may be seen in a number of the drawings, for example, in FIGURE 6. These several units are integral with the disc-like body of the lower member 21 but are connected thereto by a weakened section 23 as shown in several of the drawings. This weakened section permits the outwardly extending tabs to be bent downwardly as shown in FIGURE 3 when it is desired that a pill be removed therefrom. The outermost edge of the pill-holding cavity is tapered inwardly 24 as shown in FIGURE 6. This permits the leading edge of the container unit to clear the outer annular rim 13 of the cover member when it is bent downward.

In addition to the several pill-holding outwardly extending tab members, there is one indexing and locking tab 25. This outwardly extending indexing member does not have a pill-holding cavity and the tab has a different outward shape of appearance than the other pill-holding tabs for easy recognition. To save plastic material in molding the units, this tab member may be hollow as shown by the upwardly extending cavity 27.

The indexing and locking tab member also has a locking rib 28, FIGURES 5 and 9, and preferably, a couple of pressure ribs 29 on the innermost side thereof.

The bottom member of the pill box may have locking lugs 31, 32, and 33 so that the two halves of the container may be assembled by simply pressing the three locking lugs past inner edge 30 of the cover member, usually after the tablets have been loaded in the lower half of the container.

The operation of the new pill box will be apparent from the drawings. The pill-holding tabs of the lower half of the container are appropriately filled with pills or other small objects, and the cover is placed over the bottom half with the locking lugs in line with the inner rim 30

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of the cover and snapped in place with slight pressure. Once assembled, the two parts are difficult to separate. However, the cover can turn freely when the locking lug 25 is in an open position as shown in FIGURE 9. The lower half may then be turned until the indexing lug is at a desired starting place on the container and is then pressed back into place. The two parts of the pill box are then prevented from turning by locking ribs 28 which are in the channels 15 of the cover as shown in FIGURE 9 and in other figures of the drawing. When in this position, the cover cannot be turned on the base until the locking lug is again depressed and cleared so that the cover may turn. Individual pills or objects in the small cavities of the container tabs may be removed by pressing downwardly on the outermost section of the tabs with the finger. When the pill is removed, the tabs are then returned to their normal position.

As indicated above, the container of the present invention is a two-piece injection molding. The lower section of the container should be of a material having a reasonable degree of flexibility in order that the individual pill-holding tabs may be bent downwardly at the hinged section without breaking or tearing as shown in FIGURES 3 and 9. Suitable materials include polyethylene, polypropylene, nylon, rubber, and various other well known flexible plastic materials. The upper section of the container can be made of more of the same plastic material as the cover section, but it may be a more rigid plastic, if desired, such as the polystyrenes, polymethylmethacrylates, cellulose acetate, cellulose butyrate, and others. It is preferred that the upper section at least be of a transparent material so that the user of the container can see whether the individual units contain an object ready for dispensing.

What is claimed is:

1. A container for small objects to be dispensed individually which consists essentially of a circular cover member and a circular base member, said base member having a plurality of tabs radially extending from a central disc-like center, said tabs having a cavity adapted to

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hold a small object and being of a flexible material permitting said tabs to be bent downward out of the plane of said circular section on application of downward pressure, said cover member being essentially annular with U-shaped cross section and being adapted to cover the object-holding cavities of the base member, means for holding the cover member against the base member but permitting the two parts to turn with respect to each other, a series of vertically disposed locking grooves in the inner wall of the outer face of said annular section, said grooves being spaced apart and corresponding in number to the several object-holding tabs, at least one of the outwardly extending tabs of the base member being an indexing member having means on its outermost side wall adapted to slip into any one of the locking grooves in the inner wall of the cover member and thus prevent rotation of said cover with respect to the base member except when the said indexing tab is depressed.

2. A dispensing container in accordance with claim 1 having indices on the upper face of the cover member spaced in alignment with the locking grooves of the inner wall thereof so that each individual object-holding cavity of the base member may be identified.

3. A container in accordance with claim 1 in which the outwardly extending indexing tab is of a different configuration from that of the object-holding tabs to permit easy visual recognition thereof.

4. A container in accordance with claim 1 in which all of the radially extending tabs form a diameter larger than that of the circular cover member providing means for grasping the tab to bend it downward when desired.

5. A container in accordance with claim 1 in which the base member is molded of a flexible polymer and the cover member is molded of a more rigid transparent polymer.

References Cited

UNITED STATES PATENTS

3,288,277 11/1966 Hallerbach 206—42

MARTHA L. RICE, *Primary Examiner*.