

[54] **MEDICATION DISPENSER AND SCHEDULE REMINDER**

[76] Inventor: Charles C. Ewing, 715 Broadway, Wellsville, Ohio 43968

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[58] Field of Search 116/121; 206/538, 539, 206/533, 534; 220/327, 328

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Primary Examiner—Richard C. Queisser

Assistant Examiner—Marcus S. Rasco

Attorney, Agent, or Firm—Michael Williams

[57] **ABSTRACT**

My invention relates to a device for containing medication and for indicating the time when such medication should be taken. The device comprises a base having a plurality of compartments arranged in a circle, and a cover rotatably carried by the base and overlying the compartments.

A circular wall defines the outer peripheral portions of

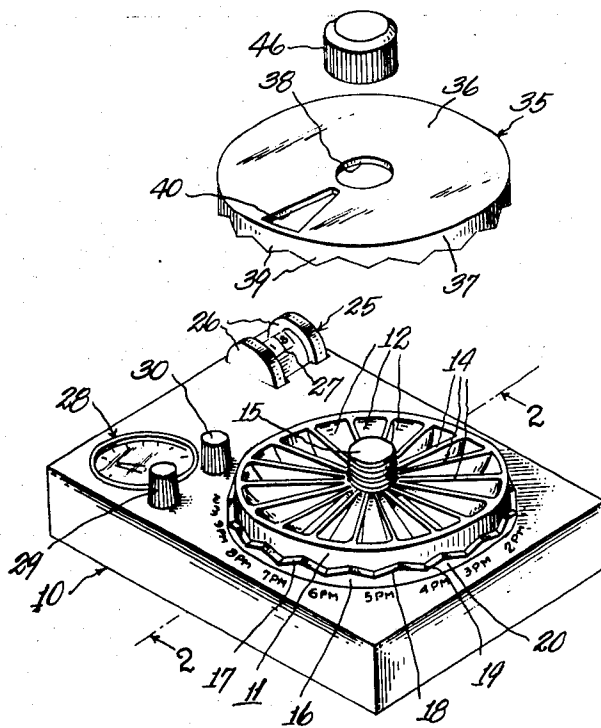
the compartments and a circular ledge circumscribes the wall and has an upwardly facing saw-tooth edge. A screw-threaded hub extends upwardly from the center portion of the compartments.

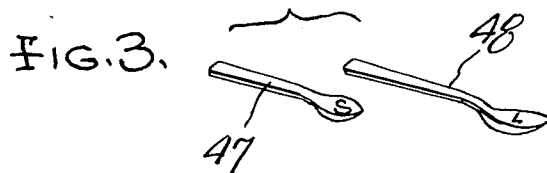
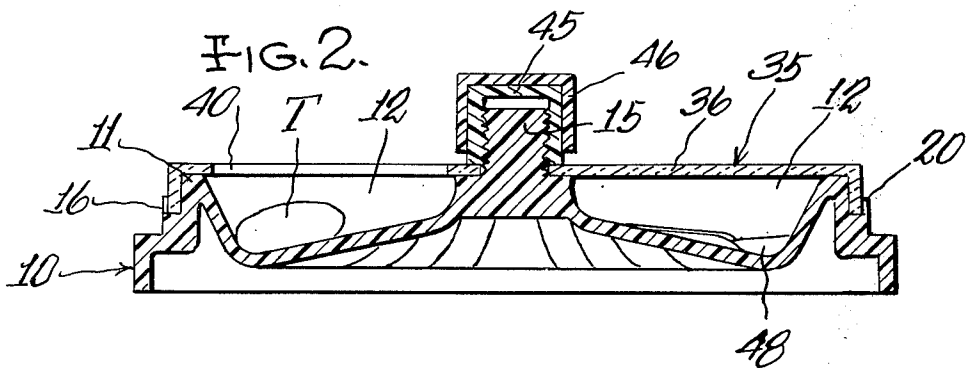
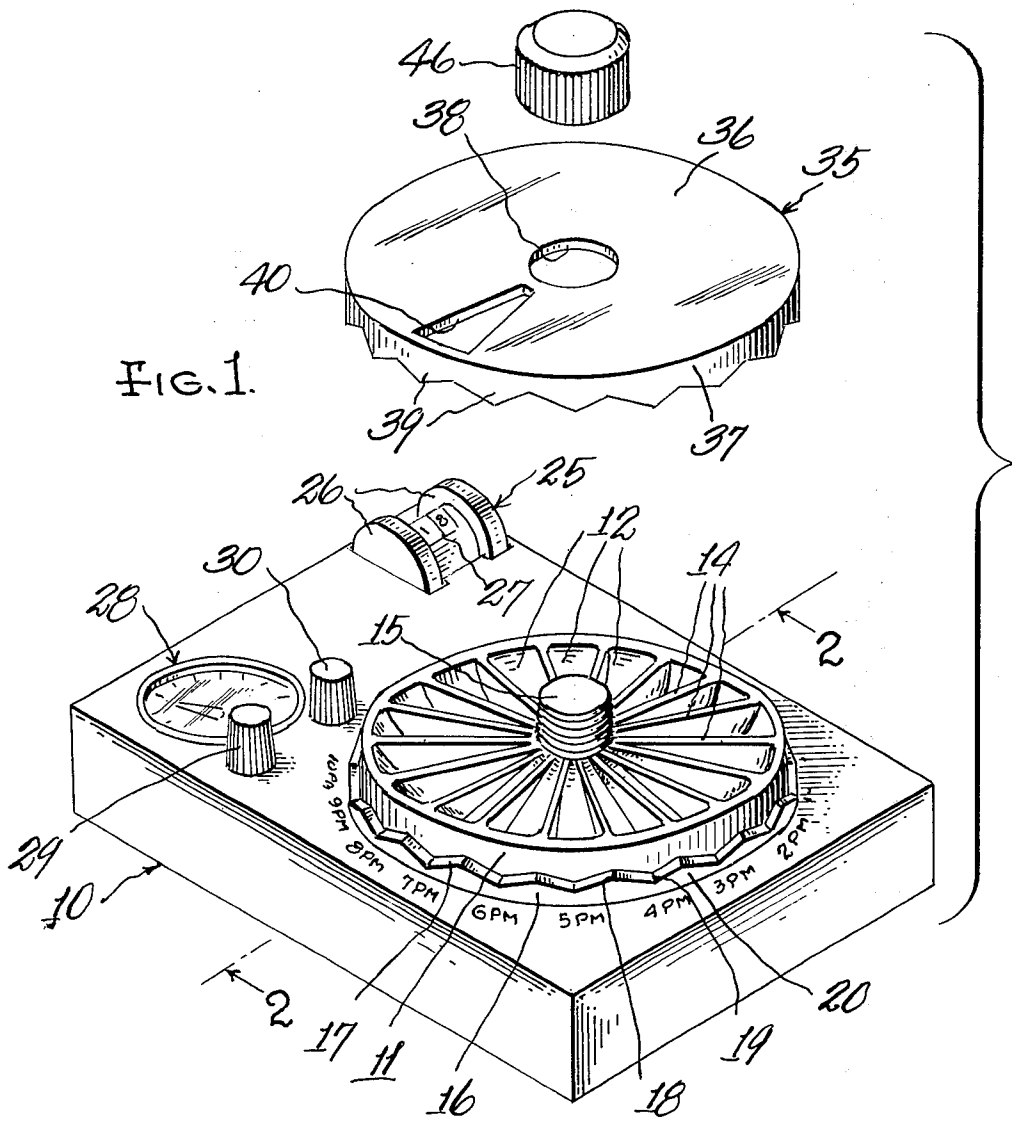
The cover is formed of a transparent material, such as clear plastic, and is in the form of a circular disc with a central opening to pass the threaded hub, and an off-center opening, which may be aligned with a selected compartment. The cover has a depending peripheral flange with a saw-tooth edge which is complementary to the edge of the circular ledge. An internally threaded cap is threaded on the hub to hold the cover in place and against unintentional rotation by reason of the fact that the complementary saw-tooth edges are held in mating relationship.

All, or selected compartments, are filled with prescribed medicinal tablets and each compartment is marked with a prescribed indicia, such as certain hours of the day. At the prescribed time, the user will rotate the cap in a direction to permit a slight elevation of the cover to disengage the saw-tooth edges, whereby the cover may be rotated to align the cover opening with the desired compartment. The cap is then threaded to move the cover onto the compartments and to engage the saw-tooth edges, and the device may be inverted to remove the tablet from the compartment, through the opening in the cover.

If the medication to be taken is in liquid form, a reminder, such as a miniature teaspoon or tablespoon, may be placed in the prescribed compartments.

7 Claims, 3 Drawing Figures





MEDICATION DISPENSER AND SCHEDULE REMINDER

BACKGROUND AND SUMMARY

The use of rotatably arranged compartments, and a cover for controlling access to a selected compartment, are known in the art. However, the devices of the prior art are not as reliable as that of my invention, and in large part are of complicated construction.

My improved device is particularly adapted for use by the elderly who are perhaps not as alert as they used to be and who possess a limited amount of strength. In such cases, the structures of the prior art are believed to be unsuitable. It should be pointed out that the reliability and ease of operation of my improved device make it suitable for use by persons of all ages, except the very young.

The device comprises a base having a plurality of radially arranged compartments which open upwardly from the base. A transparent cover controls access to any one of the compartments. A date selector and a timer are incorporated into the base to provide reminders to the person who is required to take medication at prescribed times.

DESCRIPTION OF THE DRAWING

In the drawing accompanying this specification and forming a part of this application there is shown, for purpose of illustration, an embodiment which my invention may assume, and in this drawing:

FIG. 1 is a perspective view of my improved device, with parts shown in separated relation,

FIG. 2 is an enlarged sectional view corresponding generally to the line 2—2 of FIG. 1, but with parts in assembled relation, and

FIG. 3 is a perspective view of details which may be used in conjunction with the device.

DESCRIPTION OF THE PREFERRED EMBODIMENT

My improved device comprises a base 10 which may assume any desired shape, such as the box-like shape in the drawings. The base may be formed of any suitable material, and presently it is preferred to mold the base of a rigid plastic material.

An integral, circular wall 11 extends upwardly from the base and forms the peripheral boundary for a plurality of similar compartments 12 defined by a plurality of ribs 14 extending radially from a central threaded hub 15 which projects above the plane defined by the upper edges of the ribs. Any desired number of compartments may be provided and I presently prefer 18 compartments, each marked with an hour of the day, such as from 6 a.m. to 11 p.m., since these are the hours during which the majority of medication is taken.

A circular ledge 16 circumscribes the lower part of the wall 11 and may also be integral with the base. The ledge has an upwardly facing saw-tooth edge 17 to provide equally spaced crests 18 and troughs 19 to form teeth 20 which, in the disclosed embodiment, are 18 in number to correspond to the number of compartments. The troughs 19 are aligned with the radial centerline of respective compartments, and the hour designation is formed on the upper surface of the base, in line with the troughs, as seen in FIG. 1.

The base 10 also carries a date selector 25 which may be of any suitable commercially available type. As herein disclosed, the date selector has a pair of thumb wheels 26 which are independently rotatable to make it possible for the user to establish a selected date in the sighting window 27. Also carried by the base 10 is a timer 28, preferably of the spring-wound type for purposes of economy and simplicity, although a small, battery operated clock, incorporating a timer, may be used. Any suitable, conventionally available timer may be used and in the disclosed embodiment the timer is spring-wound to operate for a period of about 6 hours. A winding knob 29 and a timer setting knob 30 project upwardly from the base.

A cover 35 is adapted to close the compartments 12 and, as seen in FIG. 1, comprises a circular disc 36 with a depending peripheral wall 37. The cover is formed of a rigid transparent material, such as clear plastic, and has a central opening 38 to closely pass the threaded hub 15. The peripheral wall 37 closely fits around the circular wall 11 of the base, as seen in FIG. 2, and its edge is formed with saw teeth 39 which are complementary to the saw teeth 20 of the circular ledge 16. The cover is provided with an off-center wedge-shaped opening 40 which may be aligned with a selected one of the compartments 12.

An internally threaded cap 45 (see FIG. 2) is provided to hold the cover 35 in place over the compartments, and this cap may also be formed of a rigid plastic material. As a safety feature, a cover cap 46 is disposed over the cap 45 and the cover cap may be formed of a soft plastic material so that unless it is squeezed to grip the cap 45, it will only rotate about such cap and therefore will not effect any threading action of the cap 45.

As a recommended use of my improved device, a person each night before retiring should set the date selector for the following date and select the medication for the following day and deposit it in the compartments marked with the time for taking the medication. It is assumed that the cap 45 has been unthreaded from the hub 15 sufficiently to permit rotation of the cover 35. If the medication is in tablet or pill form, the tablets T are deposited in the proper compartment. If the medication is in liquid form, a reminder is placed in the proper compartment. As presently preferred, such reminders may take the form of miniature teaspoons and tablespoons 47 and 48, shown in FIG. 3. To further avoid confusion, the spoons may be marked "S" and "L" to indicate small and large.

As an example of use, if one tablet is to be taken every 4 hours, the person will place one tablet in each of the 8 a.m., 12 noon, 4 p.m., and 8 p.m., compartments and this may be accomplished by rotating the cover 35 to align the opening 40 with the respective compartments and dropping the tablet through the opening. When the last tablet has been deposited within its compartment, the cover 35 is rotated to align it with a compartment that does not contain a tablet and the cap 35 threaded down in the hub 15 to interengage the mating teeth 20 and 39, to prevent rotation of the cover. If desired, a door (not shown) may be provided to close the opening 40.

It is preferable that the tablets or reminders are placed in the compartments at night before retiring. Therefore, upon arising the next day, the entire day's medication has been pre-selected and pre-located and

is visible through the clear plastic cover 35. Thus, in the example of the four tablets above noted, at 8 a.m., the user will unscrew the cap 45 sufficiently to permit the cover 35 to be raised enough to clear the mating teeth 20 and 39. The cover is then rotated until the opening 40 is aligned with the compartment 12 bearing the 8 a.m. designation, and the cap is then threaded down on the knob 15 to again engage the mating teeth to prevent rotation of the cover. The base 10 may then be inverted so that the tablet T will drop out of its compartment 12, through the opening 40, and into the hand of the user.

When the first tablet has been taken, its compartment will be empty and a person will not need to wonder whether or not the 8 a.m. medication had been taken. Looking through the clear plastic cover 35, the user will see that the next tablet should be taken at noon, so he or she will set the timer 28 to give an alarm 4 hours hence. This will be repeated during the day until all tablets have been taken.

My improved device is particularly useful, as above noted, for the elderly or where mental alertness is not present but where constant care is not needed. In this case, a nurse or one of the family may load the compartments with the proper medication and make sure that the first tablet is taken in the morning. The timer may then be set so that the person requiring the medication may take personal care for the remainder of the day. If the tablets are not taken, as required, they will remain in their compartments to provide visible evidence that the medication has not been taken.

I claim:

1. A medication dispenser and schedule reminder comprising
 - a base having a circular wall extending upwardly therefrom, said wall defining the bottom boundary of a plurality of compartments formed by a plurality of spaced ribs radiating from a center upstanding hub on said base, each compartment opening upwardly and adapted to contain an object such as a medicinal tablet or medicine reminder to be taken at a predetermined time,
 - a cover of a size to overlie all of said compartments and having a central opening to pass said hub therethrough whereby said cover is rotatable about said hub, said cover having an offcenter opening which may be rotatably aligned with a selected

compartment so that the contents may be removed, a circular ledge circumscribing said base circular wall at its lower portion, said ledge having a serrated upper edge,

said cover having a circular flange bounding said base wall and having a serrated lower edge interfitting with and complementary to said serrated upper edge of said base ledge, and,

a retainer cap having means threadedly cooperable with said hub whereby said cap overlies said cover and releasably securable to said hub to hold said cover in position closing said compartments excepting the compartment exposed by said cover opening,

the complementary base ledge and cover flange serrations mating and seating when said cap is secured to said hub thereby to restrict rotation of said cover,

thereby to ensure that only the selected exposed medication is taken at the predetermined time and whereby loosening of said retainer cap releases the engaging serrations and permits turning of said cover to expose a further compartment containing medicament for another predetermined time.

2. The construction according to claim 1 wherein the serrations on said ledge edge are upwardly facing teeth, and the serrations on said flange are downwardly facing teeth.

3. The construction according to claim 2 wherein said teeth are V-shaped.

4. The construction according to claim 2 wherein said teeth provide equally spaced crests and troughs, the latter in a number equal to the number of compartments and respectively radially aligned therewith, whereby said cover opening is aligned with a said compartment in every complementary mating position of said upper and lower teeth.

5. The construction according to claim 1 wherein said base supports a timer which may be set to provide a signal when a selected time has elapsed.

6. The construction according to claim 5 wherein said base also supports a date selector.

7. The construction of claim 1 including time indicia on said base aligned with each of said tooth troughs and each of said compartments.

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