

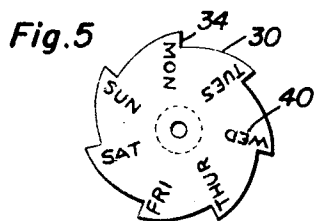
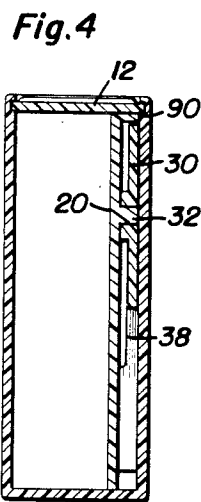
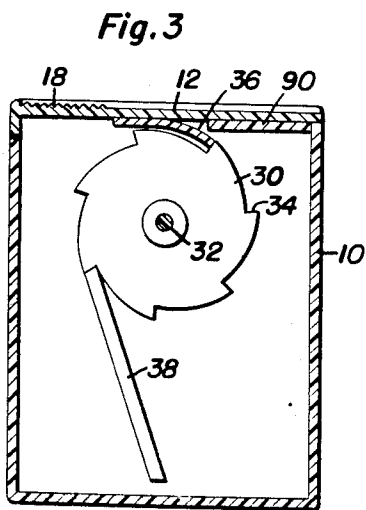
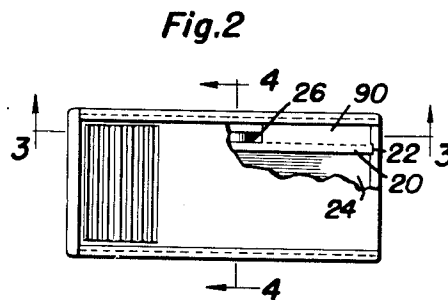
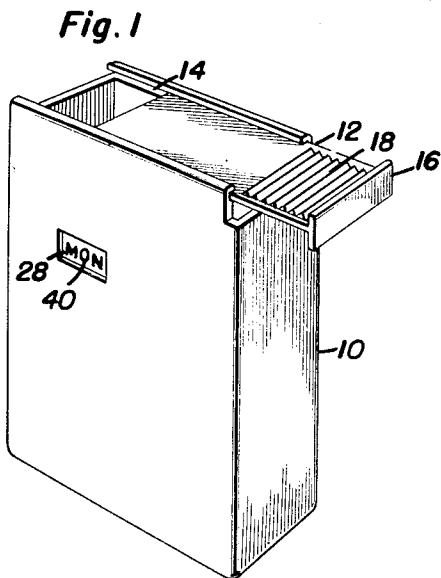
April 28, 1953

H. C. MCKAY
CAPSULE DISPENSER

2,636,469

Filed Jan. 9, 1952

2 SHEETS—SHEET 1



Hosmere C. McKay
INVENTOR.

BY *Alvanice A. O'Brien*
and *Harvey B. Jackson*
Attorneys

April 28, 1953

H. C. MCKAY
CAPSULE DISPENSER

2,636,469

Filed Jan. 9, 1952

2 SHEETS—SHEET 2

Fig. 6

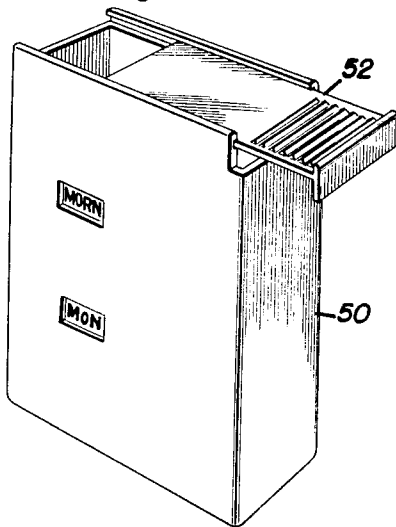


Fig. 7

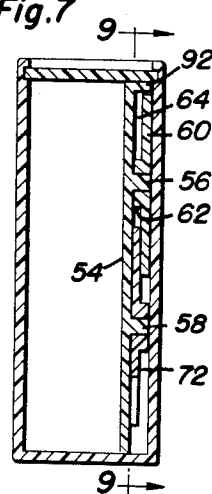


Fig. 10

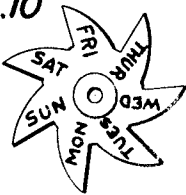


Fig. 11

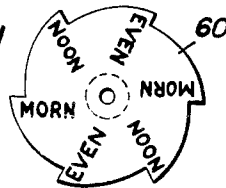


Fig. 8

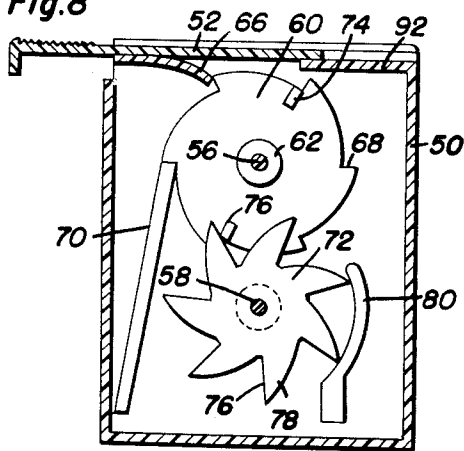


Fig. 9

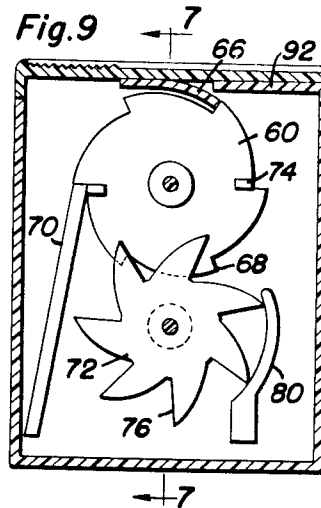
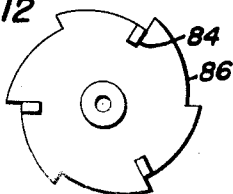


Fig. 12



Hosmere C. McKay
INVENTOR.

BY *Chance A. O'Brien*
and *Harvey E. Jackson*
Attorneys

UNITED STATES PATENT OFFICE

2,636,469

CAPSULE DISPENSER

Hosmere C. McKay, Portland, Conn.

Application January 9, 1952, Serial No. 265,694

5 Claims. (Cl. 116—133)

1

This invention relates to a dispenser and particularly for a dispenser for recording the last dispensing therefrom. Those persons who must habitually take pills, medicines or other things at stated intervals frequently have difficulty in remembering whether the particular dosage or operation has last been taken.

The present invention provides a dispensing container in which there is a recording device operated by removing the material from the dispenser to remind the user when the last was used or when the next is due. In general, it requires the use of one or more star wheels mounted for gradative operation so that the opening or closing of the container will actuate the recording device which can be easily seen through windows or other means outside of the container.

It is accordingly an object of this invention to provide an improved dispenser.

It is a further object of this invention to provide a dispensing container having means for registering the last use thereof.

It is a further object of this invention to provide a recording dispensary having a plurality of records thereon.

Other objects and many of the attendant advantages of this invention will be apparent from the following detailed description taken in conjunction with the accompanying drawing in which:

Figure 1 is a perspective view of the recording dispenser according to the invention;

Figure 2 is a top plan view of the dispenser with parts broken away;

Figure 3 is a section through the dispenser showing the gradatim wheel and taken substantially on the plane indicated by the line 3—3 of Figure 2;

Figure 4 is a section showing the mounting of the gradatim wheel and taken substantially on the plane indicated by the line 4—4 of Figure 2;

Figure 5 is a plan view of the record wheel;

Figure 6 is a perspective of a modification having a plurality of record wheels;

Figure 7 is a sectional view taken substantially on the plane indicated by the line 7—7 of Figure 9 and showing the mounting of the plurality of step-by-step wheels;

Figure 8 is a sectional view taken substantially on the line 9—9 of Figure 7 but showing the closure in open position;

Figure 9 is a sectional view taken substantially on the plane indicated by the line 9—9 of Figure 7;

Figure 10 is a plan view of a secondary gradatim wheel;

Figure 11 is a plan view of a primary three-a-day gradatim wheel; and,

Figure 12 is a back view of a two-a-day primary wheel.

2

In the exemplary embodiment of the invention a container 10 is provided with a top 12 which slides in a groove 14 and is operated by a thumb grip 16. Preferably a portion of the top of the closure 12 is provided with a roughened portion 18 to assist in getting a grip on the portion 16.

A partition 20 which slides in grooves 22 on the inside of the container 10 divides the container into a plurality of compartments 24 and 26. The compartment 24 being of relatively large size and adapted to contain the pills, capsules or other material which is to be dispensed.

The compartment 26 is of relatively narrow dimensions and extends along one side of the container and is used to shield and protect a plurality of gradatim wheels which carry certain data which should be periodically produced in windows 28 visible from the outside of the container. The record wheel 30 is mounted on a stub shaft 32 which is preferably integral with or thoroughly secured to the partition wall 20. The gradatim wheel 30 is provided with a plurality of peripheral teeth 34 and the cover 12 is provided with a resilient finger 36 which engages the teeth 34 and when the cover is closed will actuate the wheel 30 in step-by-step or gradatim relation. In order to prevent reverse rotation of the wheel 30 by the withdrawal of the closure 12 a resilient stop 38 is mounted in the compartment 26 and likewise engages the teeth 34 to prevent reverse rotation of the wheel 30.

That portion of the wheel 30 which can be seen through the window 28 is provided with suitable indicia 40 herein shown as indicating the days of the week. Obviously any suitable data such as hours of the day, days of the month or any other arrangement could be suitably inscribed on the data wheel.

The modification according to Figures 1 to 5 is particularly useful for those individuals who expect to make a single operation each day of the week. However, it frequently happens that the pills must be taken or the operation performed a multiple number of times per day. For this purpose it is desirable to use more than one record wheel and to make the second record wheel operate according to the operation of the first record wheel.

A dispenser having a multiple indicator is indicated in Figures 6 to 12 inclusive. In this modification the container 50 is provided with a cover 52 and is provided with a partition wall 54 having stub axles 56 and 58. A toothed wheel 60 is mounted on the stub shaft 56 and is provided with a collar 62 providing a space 64 between the wheel 60 and the partition 54. The movable cover 52 is provided with a spring finger 66 which engages the teeth 68 of the wheel 60 so that closing the cover advances the gradatim wheel 60 a full step. A resilient stop 70 is

mounted in the compartment and also engages one of the teeth 68 to prevent reverse rotation of the wheel 60. A stellate wheel 72 is mounted on the stub shaft 58 and a portion of the periphery of the stellate wheel 72 lies between the toothed wheel 60 and the partition 54, so that the wheels substantially overlies each other adjacent one edge thereof. The toothed wheel 60 is provided with actuating studs 74 and 76 herein shown as being at opposite positions on the wheel 60 and having three steps therebetween so that the primary wheel 60 is a three-step wheel or a so-called three-a-day wheel. The studs 74 successively engage the straight edges 76 of the point 78 of the stellate wheel 72. In the arrangement shown in Figures 8 and 9 the studs 74 will advance the stellate wheel one step for each three steps that the toothed wheel is operated. Preferably a resilient brake 80 is mounted in the container and contacts the ends of the point 78 so that the wheel 72 will only turn under the influence of the studs 74.

In the three-a-day wheel preferably the primary or toothed wheel is indicated as morning, noon or night or other suitable indicia to indicate certain periods of the day, while the secondary wheel is preferably indicated the days of the week, days of the month or other suitable indicia.

For a two-a-day wheel the modification is indicated in Figure 12 in which three of the studs 84 are mounted on a modified toothed wheel 86 which can replace the wheel 30 or 60. Obviously with this three toothed arrangement the star wheel will be advanced one step for each two steps of the primary toothed wheel.

Obviously the wheels 30, 60 and 86 are interchangeable so that the indication according to the particular case may be used. Obviously if the wheel 30 without the stud 74 or 84 is utilized there will be no operation of the secondary gradatim wheel.

In order to prevent material from the container from entering the compartment 26 the partition 20 is provided with an intumed lip 90 covering that portion of the compartment 26 not covered or moved in by the finger 36. Likewise the compartment and wall 54 is provided with an intumed lip 92 which likewise serves to keep medicines or other paraphernalia from entering the record compartment and fouling up the wheels.

While particular embodiments have been shown, and described according to the best present understanding thereof, it will be apparent to those skilled in the art, that many changes and modifications can be made therein without departing from the true spirit of the invention.

Having thus described the invention, what is claimed as new is:

1. A dispensing container comprising a box-like body, a portion in said body providing a narrow compartment adjacent one side of said container, a stub axle on said partition and extending substantially across said compartment, a toothed wheel mounted on said axle, a cover on said container, a resilient finger on said cover and extending into said compartment, said toothed wheel being mounted in the path of travel of said finger, a second stub axle on said partition, a stellate wheel mounted on said second axle, star points on said stellate wheel, said stellate wheel partially overlying said toothed wheel, studs mounted on said toothed wheel, said studs extending into the region of overlap of

said wheels, the points of said stellate wheel being successively engaged by said studs.

2. A registering dispenser comprising a container, a cover operatively associated with said container, a toothed wheel mounted in said container adjacent one side thereof, said wheel extending in proximity to said cover, a resilient finger secured on said cover, said finger contacting a tooth of said wheel to provide gradatum movement of said wheel when said cover is operated to open and close said container, a resilient stop mounted on said container and engaging a tooth of said wheel for preventing backward rotation of said wheel, a stellate wheel mounted in said container, star points on said stellate wheel, said stellate wheel overlapping a portion of said toothed wheel, studs on said toothed wheel sequentially engaging the points of said stellate wheel.

3. A registering dispenser comprising a container, a sliding cover operatively associated with said container, a toothed wheel mounted in said container adjacent one side thereof, said wheel extending in proximity to said cover, a resilient finger secured in depending relation on said cover, said finger successively contacting the teeth on said wheel when said cover is operated to open and close said container to produce gradatum rotation of said wheel, a resilient stop yieldingly engaging the teeth of said wheel for preventing backward rotation of said wheel, a stellate wheel mounted in said container, said stellate wheel overlapping a portion of said toothed wheel, studs on said toothed wheel sequentially engaging the points of said stellate wheel, indicia on said wheels.

4. A recording dispenser comprising a container, a cover operable to open and close said container, a toothed wheel mounted in said container, a finger on said cover successively engaging the teeth of said toothed wheel, whereby actuation of said cover rotates said wheel in step-by-step relation, a stellated wheel mounted in said container, star points on said stellated wheel, the points of said stellated wheel overlapping a portion of said toothed wheel, studs on said toothed wheel engaging said stellated wheel for advancing said stellated wheel in gradation.

5. A recording dispenser comprising a container, a cover operable to open and close said container, a toothed wheel mounted in said container, a finger on said cover successively engaging the teeth of said toothed wheel, whereby actuation of said cover rotates said wheel in step-by-step relation, a stellated wheel mounted in said container, star points on said stellated wheel, the points of said stellated wheel overlapping a portion of said toothed wheel, studs on said toothed wheel engaging said stellated wheel for advancing said stellated wheel in gradation, windows in said container, said windows exposing portions of said wheels to view, and indicia on said wheels.

HOSMERE C. MCKAY.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
73,112	Melvin	Jan. 7, 1868
97,978	Workman	Dec. 14, 1869
191,503	Wiseman	May 29, 1877
2,313,428	Glenn	Mar. 9, 1943