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(11)

EP 0 945 365 A2

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:
29.09.1999 Bulletin 1999/39

(51) Int Cl.⁶: **B65D 83/04**

(21) Application number: **99830061.0**

(22) Date of filing: **04.02.1999**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE**
Designated Extension States:
AL LT LV MK RO SI

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(30) Priority: **04.02.1998 IT LT980002 U**

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(54) **Container-dispenser for granules, pills, tablets and the like**

(57) This invention relates to a container-dispenser for granules, pills, tablets and the like for automatically dosing a variable number of said granules, pills and tablets, without it being necessary to count them or to visually check them and with the use of a single hand. This container-dispenser is especially suitable for homeopathic drugs in the form of granules.

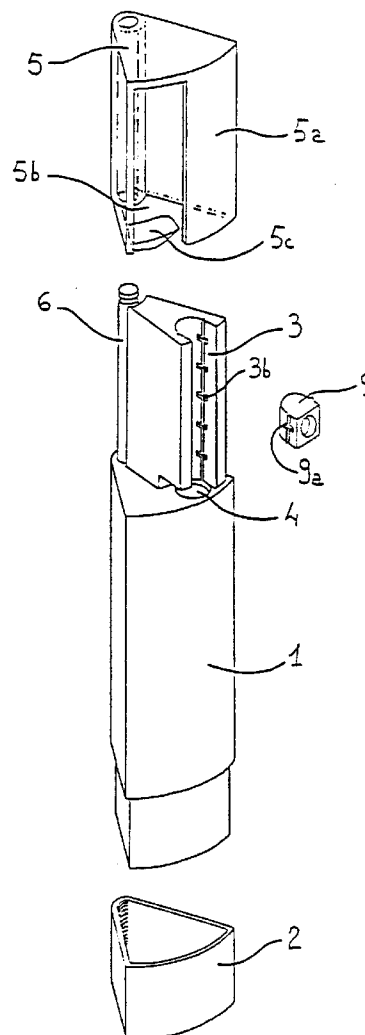


Fig. 1

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Description

Background of art

[0001] Several types of homeopathic drugs in the form of spherical granules must be taken one at a time, or in very small quantities, and must absolutely not be touched by the hands.

[0002] The state of the art containers available on the market and provided with a dosing device allow the extraction of a single granule at a time by rotating the cap. The granule drops into the cap.

[0003] In this fashion it is necessary to count the granules each time.

[0004] Once the number of desired granules has been extracted, the cap is removed and the contents tipped into the open mouth. The cap must be removed, so it is liable to being misplaced.

[0005] Furthermore, the operations for actioning the dispenser, removing the cap, administering the granules and closing the cap all require the use of both hands.

[0006] Furthermore, it is necessary to count the granules inside the cap.

[0007] Obviously, this procedure becomes rather complicated for persons suffering from poor eyesight or who are unable to use both hands.

[0008] The aim of this invention is to remedy the aforementioned shortcomings by means of a container-dispenser which does not require the user to count the granules each time and which may be used with only one hand.

[0009] This invention also relates to a container-dispenser which has no detachable parts which, therefore, cannot be misplaced.

Disclosure of invention

[0010] According to the present invention there is provided a container-dispenser for granules, pills, tablets and the like comprising a container for holding the granules, with at one end an adjustable-length duct capable of holding the desired number of granules, in a single row.

[0011] In respect of the duct, the cap (with an opening in it) may have two positions:

- closed, during which the granules are dosed;
- open, when the granules are administered.

[0012] The cap may be opened and closed simply by pressing with the thumb or the index finger of the same hand holding the container-dispenser, thus moving the mobile part of the dispenser either to open or to close the duct.

[0013] The granules may then be administered simply by tipping the container-dispenser towards the open mouth.

[0014] In this manner, the entire procedure may be

done with a single hand.

Brief description of the drawing

[0015] A specific embodiment of the invention will now be described by way of example with reference to the accompanying drawing in which:

[0016] Fig. 1 shows an exploded view of the component parts of the container-dispenser in its natural vertical position.

[0017] Fig. 2 shows a longitudinal section of the container-dispenser in the closed position.

[0018] Fig. 3 shows a cross-section of the container-dispenser in the closed position.

[0019] Fig. 4 shows a longitudinal section of the container-dispenser in the open position.

[0020] Fig. 5 shows a cross-section of the container-dispenser in the open position.

[0021] Fig. 6 shows a perspective of the container-dispenser in the closed position.

[0022] Fig. 7 shows a perspective of the container-dispenser in the open position.

Description of a preferred embodiment of the invention

[0023] The container-dispenser, in the closed position has the form of a cylinder wedge.

[0024] Referring to the drawing the container-dispenser comprises a body (1) acting as the container with a removable bottom (2) for filling with the granules.

[0025] At the top end of the body (1) there is a structure containing a duct (3) which acts as the dispenser.

[0026] The duct (3) is covered by a mobile cap (5) pivoted onto a pin (6) and fastened to it by means of a known system.

[0027] The mobile cap (5) may rotate, according to a well-defined movement, to produce two positions: (i) a closed position, which is produced when the front part (5a) of the cap (5) covers the duct (3), thus preventing it from communicating with the outside. This position may be better viewed in fig. 3; (ii) an open position, produced when the mobile cap (5) is rotated so that the opening (5b) corresponds to the duct (3), thus allowing it to communicate with the outside. In the closed position, shown in figs. 2, 3 and 6, the duct (3) communicates with the inside of the container through the hole (4).

[0028] The duct (3) is slightly larger (wider and deeper) than the granules (8) held by the container-dispenser, so that they may slide into position in a single row.

[0029] The useful length of the duct (3) may be adjusted by means of a mobile barrier (9) composed of a gauge block with projecting wings (9a), shown in fig. 1, which fit into slots (3b) at specific intervals along the sides of the duct (3).

[0030] This mobile barrier (9) may thus be placed into any one of the slots, by hand, so as to determine the duct's (3) useful length and, therefore, the number of granules (8) it may hold.

[0031] The inside of the container (1) is arranged so that, around the hole (4), there are several inclined surfaces (10) for conveying the granules toward the hole (4) itself.

[0032] To use it, it is sufficient to, (i) turn the container-dispenser upside down in the position shown in fig. 2, (ii) shake it a few times so as to make the granules (8) enter the duct (3), (iii) put the container-dispenser in a horizontal position with the front part upward, and (iv) exercise a pressure, in the point and direction indicated by the arrows in figs. 2 and 3, with the thumb of the same hand holding the container-dispenser.

[0033] The cap (5) will rotate and the opening (5b) on it will correspond to the duct (3) holding the desired number of granules (8).

[0034] Thus, they will be free to come out and may be administered simply by tipping the container-dispenser toward the open mouth.

[0035] In the open position, shown in figs. 4, 5 and 7, the diaphragm (5c) of the mobile cap (5) closes the hole (4), by means of a slot (3a) in a wall of the duct (3), so as to prevent both the dosed granules from sliding back into the container (1) and any other granules (8) from coming out, other than the established amount.

[0036] To close the container-dispenser, just apply a simple pressure with the index finger of the same hand holding the container-dispenser, in the direction opposite to the opening one.

[0037] All the component parts of the preferred embodiment of this container-dispenser are made of plastic or of other materials compatible with the contents.

[0038] From the description and the drawing one may note that this invention is extremely functional and practical.

Claims

1. A container-dispenser for granules, pills and tablets and the like comprising a container of a suitable shape (1) associated with a dispenser composed of a duct (3), whose length may be adjusted, such as to allow the automatic dosing of a variable number of granules, pills, tablets and the like, without it being necessary to count them or to visually check them, with the use of a single hand; since the duct (3), by means of a cap (5) with an opening (5a), in a first position is made to communicate with the inside of the container (1) holding the granules (8) to be dosed, so that they may slide into the duct (3), while in a second position it is open toward the outside, so that the granules (8) may be released for administration.
2. A container-dispenser as claimed in Claim 1 wherein the duct (3) is slightly larger (wider and deeper) than the diameter of the single granules (8), while its length may be adjusted.
3. A container-dispenser as claimed in the preceding Claims wherein the inside of the container is structured so that surrounding the hole (4), through which the granules (8) must pass to enter the duct (3), there are inclined surfaces (10) for conveying the granules (8) themselves towards the hole.
4. A container-dispenser as claimed in the preceding Claims wherein the device for adjusting the length of the duct (3) is composed of a gauge block (9) provided with projecting wings (9a) which fit into a series of slots (3b) at precise intervals along the sides of the duct (3), so that the block (9) may be fitted into any of the desired positions and each one of which corresponds to a different dose of granules.
5. A container-dispenser as claimed in the preceding Claims wherein the gauge block is replaced by a diaphragm.
6. A container-dispenser as claimed in the preceding Claims wherein there is a mobile cap (5) composed of a wall (5a) with an opening (5b) and a diaphragm (5c) arranged so that:
when the duct (3) is closed by the wall (5a) of the cap (5), the duct may communicate with the inside of the container (1) holding the granules (8), so that these may slide into the duct (3) when the container-dispenser is tipped; whereas, when the the duct (3) communicates with the outside, through the opening (5b) on the cap (5), the diaphragm (5c) goes into position and covers the hole (4) by means of a slot (3a), in a part of the duct (3) itself, thus closing it and preventing the granules held by the duct from going back inside the container or other granules (8) inside the container from sliding onto the duct.
7. A container-dispenser as claimed in the preceding Claims wherein the mobile cap (5) is pivoted with the body of the container (1) and the cap rotates to open and close the duct (3).
8. A container-dispenser as claimed in the preceding Claims wherein the mobile cap (5) is fastened to the body of the container (1) by means of a system of grooves and tongues, and the cap translates to open and close the duct (3).
9. A container-dispenser as claimed in the preceding Claims wherein the diaphragm (5c) is a separate perforated element, free to slide within two slots on the sides of the duct (3), right up to the hole (4) between the duct and the container, said diaphragm (5c), in alternative, being pushed into the position of partial closing or opening of the hole (4) by the movement of the cap (5).

10. A container-dispenser as claimed in the preceding Claims wherein the cap (5) provided with an opening (5b) is permanently fastened to the body of the container-dispenser and the duct (3) moves inside it, assuming either a position communicating with the hole (4) onto the inside of the container, or in a position corresponding with the opening (5b) in the cap (5), thus communicating with the outside. 5
11. A container-dispenser as claimed in the preceding Claims wherein the duct (3) is pivoted with the body of the container (1) and the movement of this duct (3) consists in a rotation. 10
12. A container-dispenser as claimed in the preceding Claims wherein the duct (3) is fastened to the body of the container (1) by means of a system of grooves and tongues suitably arranged, and the movement of the duct (3) consists in a translation. 15

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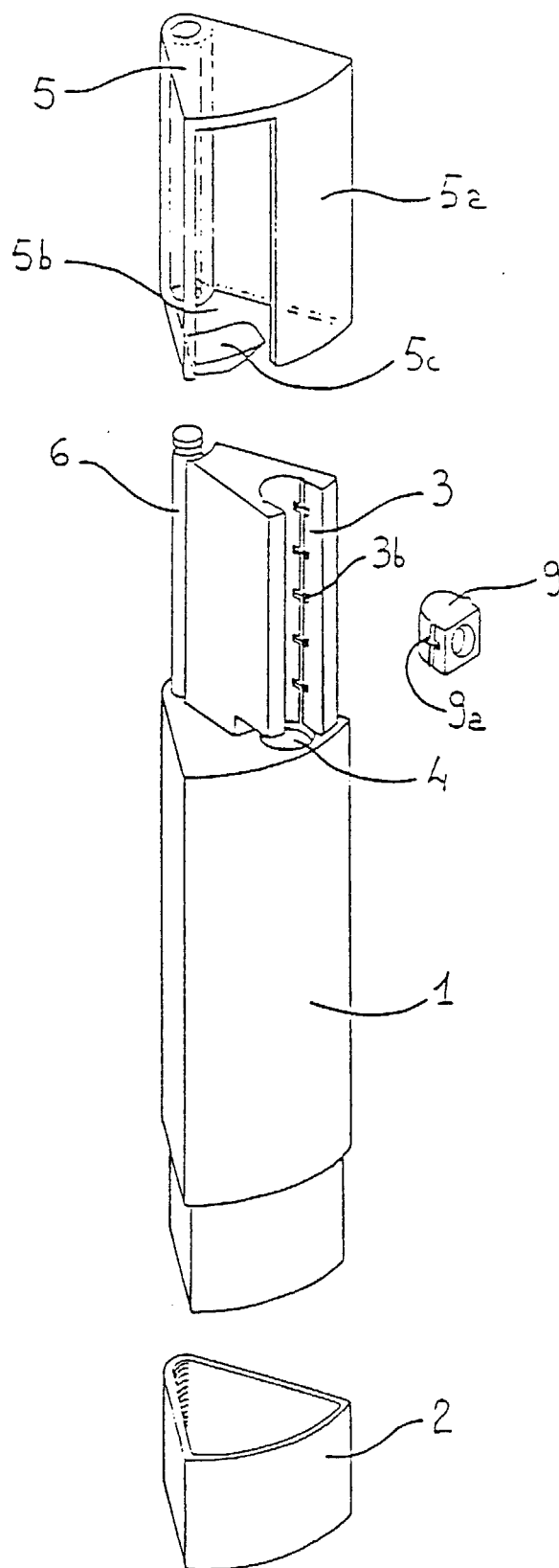
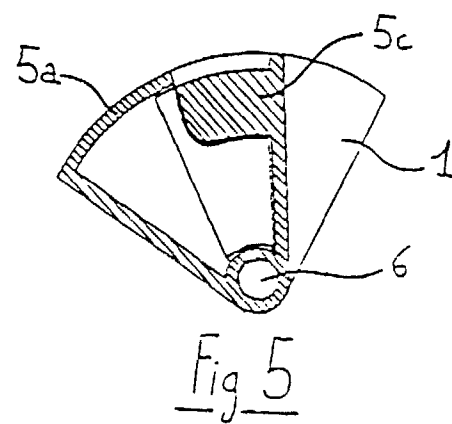
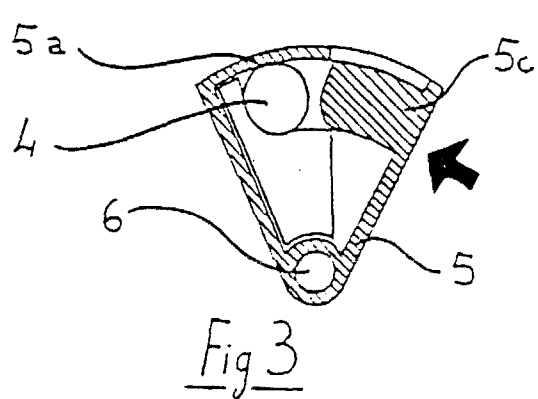
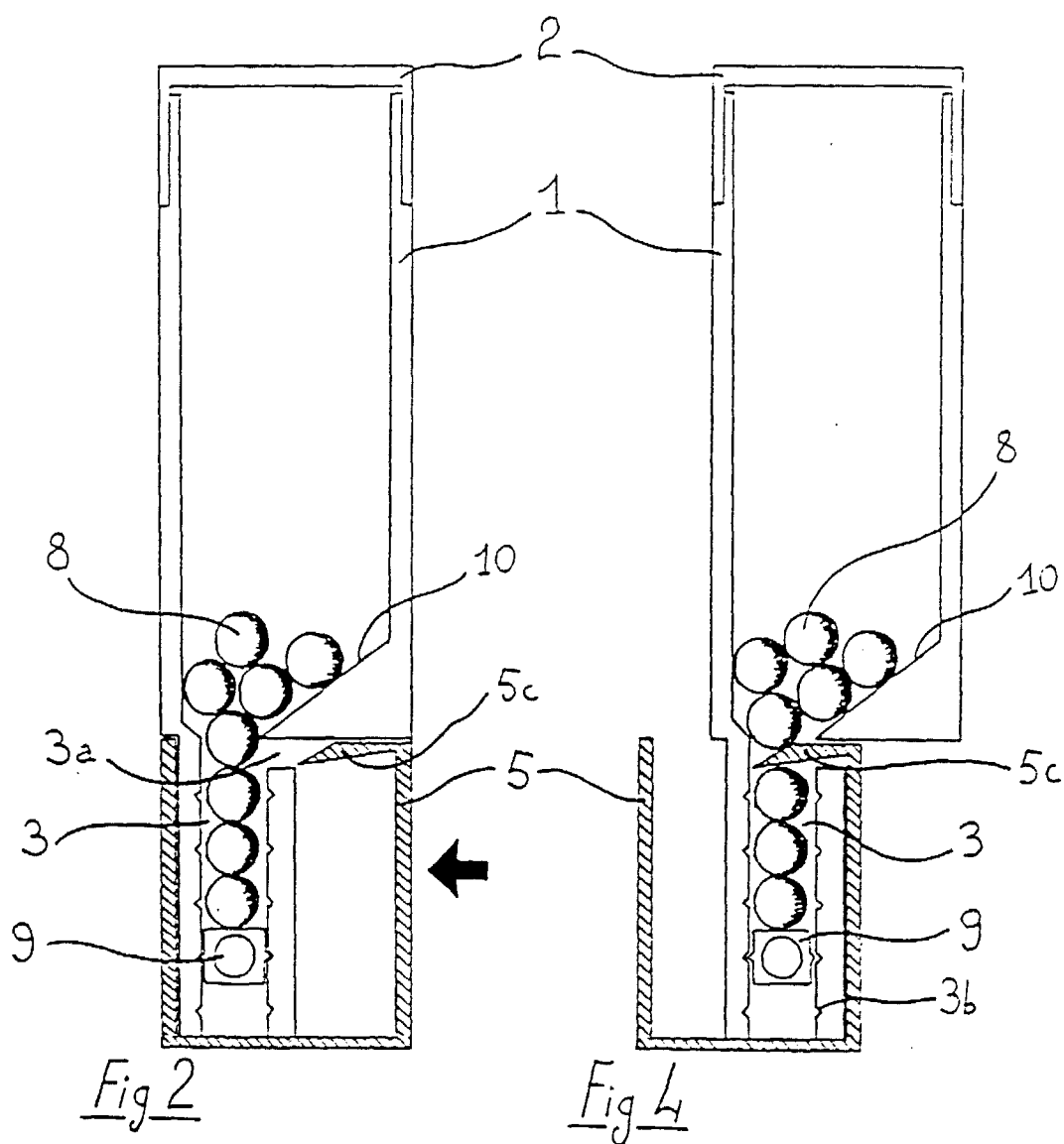


Fig 1



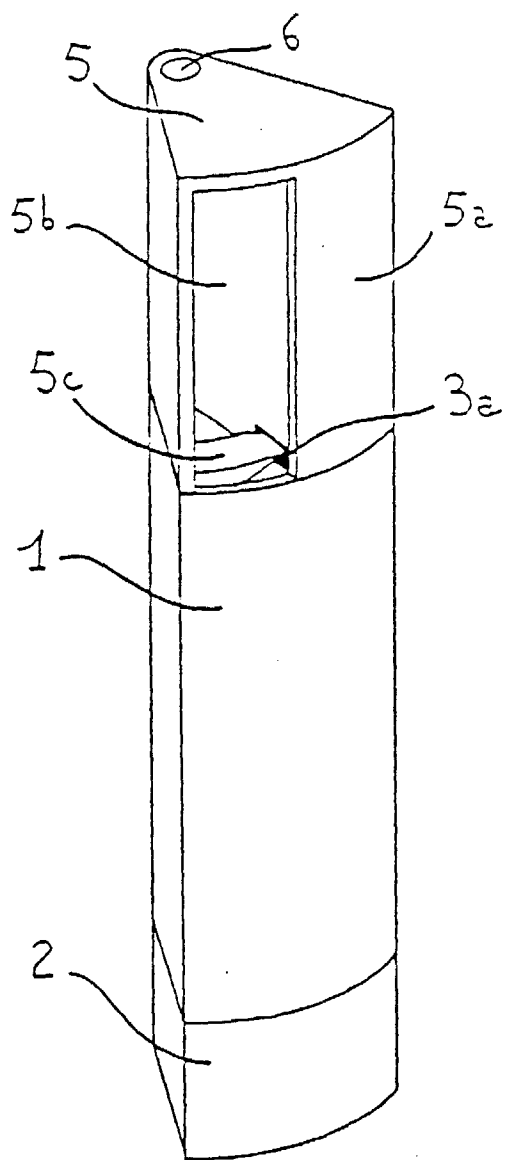


Fig 6

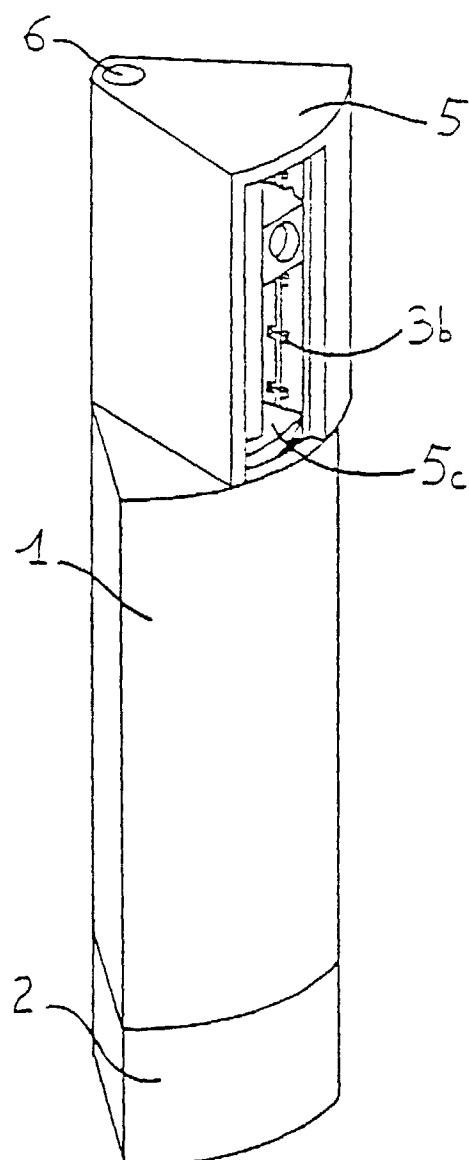


Fig 7