United States Patent [19]

Karkanen

[11] **3,759,420**

[45] **Sept. 18, 1973**

[54] **FOOLPROOF DISPENSER OF MEDICAL PILLS**

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[21] Appl. No.: **277,278**

[52] **U.S. Cl.** **221/288,** 206/42

[51] **Int. Cl.** **B65d 83/00**

[58] **Field of Search** 221/4, 75, 89, 167, 221/169, 288, 1; 206/42

[56] **References Cited**

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Assistant Examiner—H. Grant Skaggs, Jr.

[57] **ABSTRACT**

A container for dispensing pills that might be harmful if taken by children or simple-minded persons; the device consisting of a novel closure that must be adjusted and positioned in several precise subsequent attitudes so to make a pill to travel a tortuous path between the container interior and a dispensing opening, the closure consisting of a rotatable cap on a stationary base, and wherein the precise subsequent steps are almost impossible by chance to be made by a child or simple adult, but which can be quickly and easy done by a knowledgeable adult.

1 Claim, 9 Drawing Figures

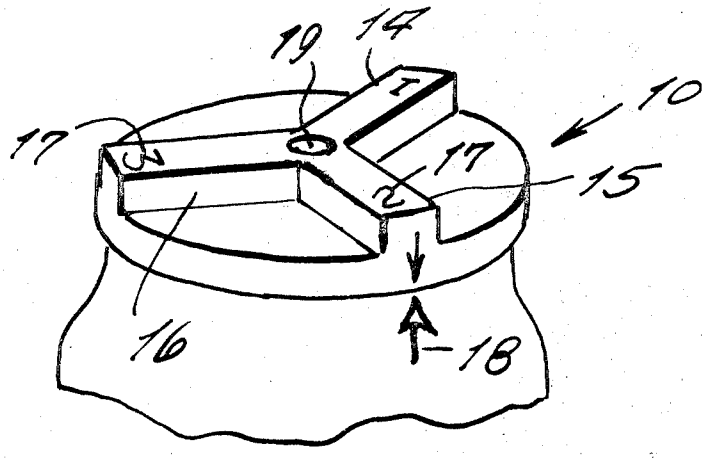


Fig. 1

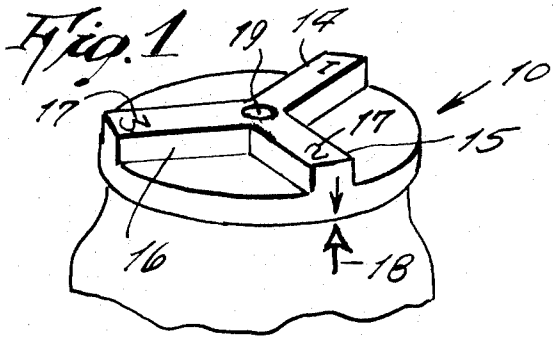


Fig. 2

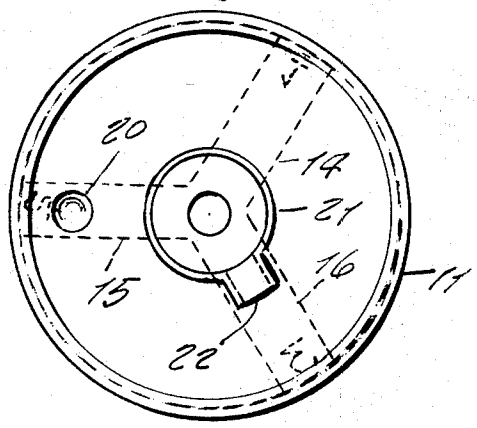


Fig. 6

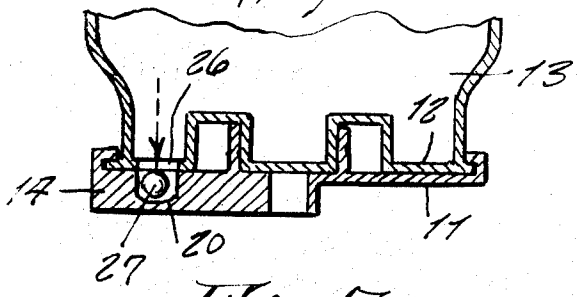


Fig. 3

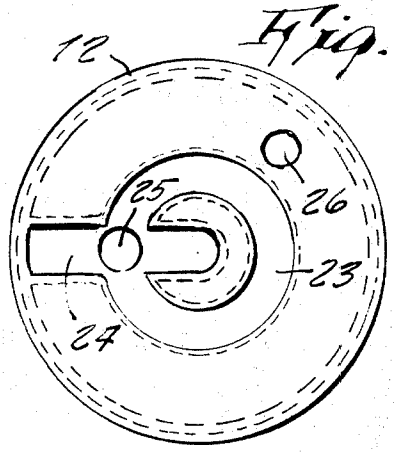


Fig. 7

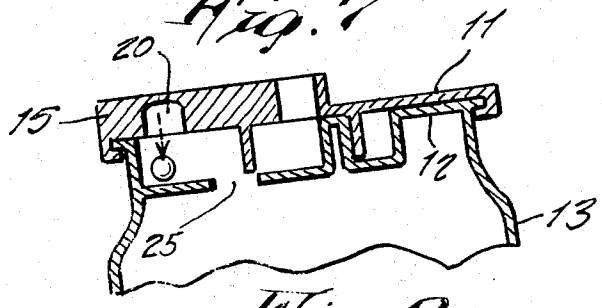


Fig. 8

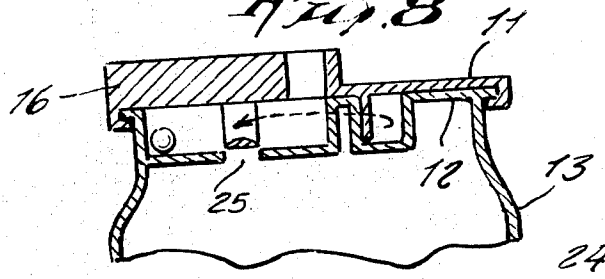


Fig. 4

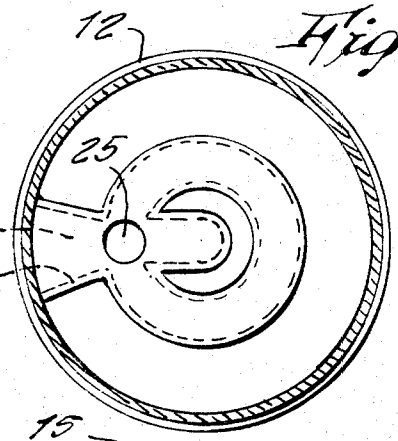


Fig. 9

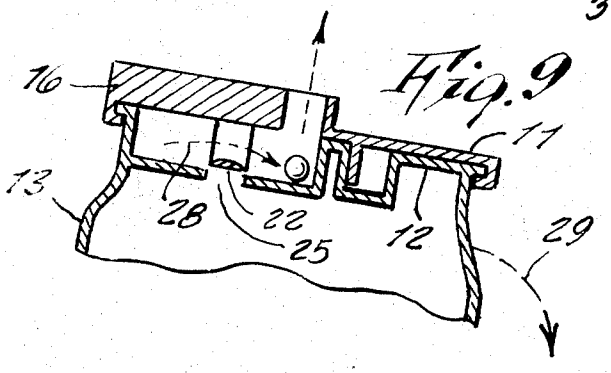
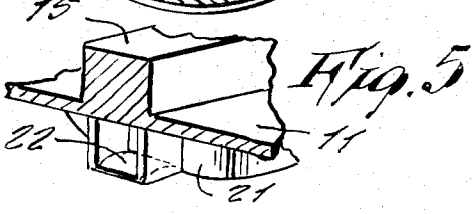


Fig. 5



FOOLPROOF DISPENSER OF MEDICAL PILLS

This invention relates generally to pill dispensing containers.

A principal object of the present invention is to provide a foolproof dispenser of medicinal pills which cannot be opened by a little child or a simple-minded person, thus preventing them to swallow the same, and wherein the dispenser is of a design so that only a knowledgeable adult can obtain the pills in a quick and easy manner.

Another object is to provide a foolproof dispenser of medicinal pills which consists of only one rotatable part and a stationary base that may comprise a component of the cap assembly or which may alternately be integral with the container, and wherein several exact steps and positions must be taken so a pill travels a path from the container interior to a dispensing opening.

Other objects are to provide a foolproof dispenser of medicinal pills which is simple in design, inexpensive to manufacture, rugged in construction, easy to use, and efficient in operation.

These and other objects will be readily evident upon a study of the following specification and the accompanying drawing, wherein:

FIG. 1 is a perspective view of the invention.

FIG. 2 is a bottom view of the rotatable cap.

FIG. 3 is a top view of the stationary cap base.

FIG. 4 is a bottom view of the base.

FIG. 5 is a detail of a bridge on the underside of the cap.

FIGS. 6 through 9 show steps to successfully dispense a pill.

Referring now to the drawing in detail, the foolproof dispenser 10 consists of a rotatable cap 11 on a stationary base 12 that comprises either a part of a container 13 or which is a separate cap member secured on the container. The parts are of molded plastic.

Cap 11 may include three raised radial turners 14, 15, and 16 on its top for easy turning, each turner being indicated such as by a number 17 so to be subsequently aligned with an arrow 18 on the base. The cap includes a central pill dispensing opening 19, a void or depression 20 on the underside of turner 15, and a circular baffle 21 on its underside that is interrupted at one point by a bridge 22 which is under the turner 16.

The base 12 includes a circular channel 23 on its upper side which is crossed by a radial extending straight channel 24. A hole 25 through the base is provided at the point where the channels intercept each other. Another hole 26 also goes through the base.

In use, to dispense a pill 26, three properly subsequent steps are taken. First the turner 14 is lined up with arrow 18 so the hole 26 aligns with void 20. The container is then tipped over so a pill 27 drops from container 13, through hole 26 and into the void as shown in FIG. 6. The container is then tipped upright being slightly inclined so that when the container is rotated, the pill drops from void 20 into the outer end of channel 24, as shown in FIG. 7. The incline prevents the pill to roll into hole 25 and back into the container; the hole 25 being provided for such purpose in case a child by chance succeeds in the first step of getting the pill into the channel 24. The cap is then rotated while the container is still inclined, until turner 16 lines up with arrow 18 so the bridge 22 closes over the hole 25, as shown in FIG. 8. The container is now tipped over as shown by arrow 28 so to cause the pill to roll across the bridge and in the inner end of channel 24, which is aligned with the dispensing opening 19, so that further tipping as shown by arrow 29 will cause the pill to roll out of the dispensing opening 19.

In FIG. 4 the outer end of straight channel 24 is shown sidewardly flared at 30 as a modified design of the invention.

I claim:

1. In foolproof dispenser of medicinal pills, the combination of a cap and a base, said cap being rotatable, said base being stationary, said cap and base being on an end of a container of pills, and means whereby said pills are individually dispensed by subsequent steps in relative positions of said cap and base, said base including an eccentrically located first opening vertically through said base, said first opening communicating with a concentric circular channel upon the upper side of said base, a raised central portion on said base surrounded by said circular channel, a radially extending channel crossing said circular channel and extending from a center of said base to an outwardly blind end thereof which is short of the periphery of said base, a second vertical opening through said base being located at a junction of said circular and radial channels; said cap having on its underside a concentric downward circular baffle that slidably fits around said raised central portion of said base, a concentric central opening vertically through said cap, an eccentrically located upward depression on the underside of said cap for selective alignment with said eccentric first opening of said base, and said circular baffle of said cap having a radial opening therethrough communicating with a radial short channel that fits slidably free in said circular channel of said base.

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