

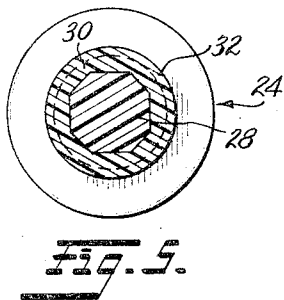
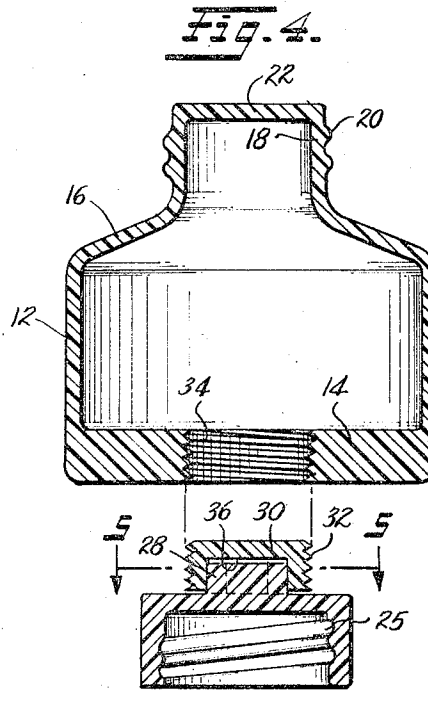
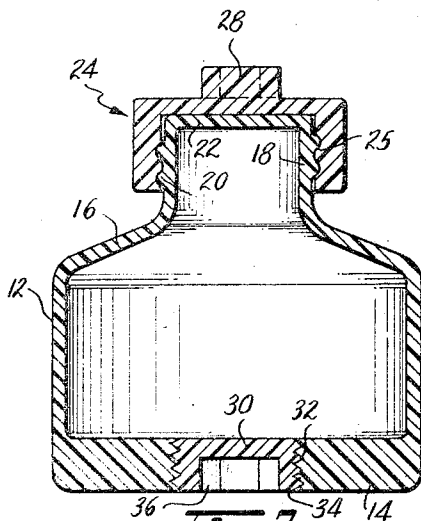
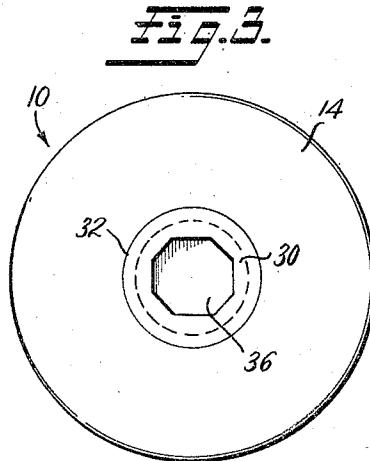
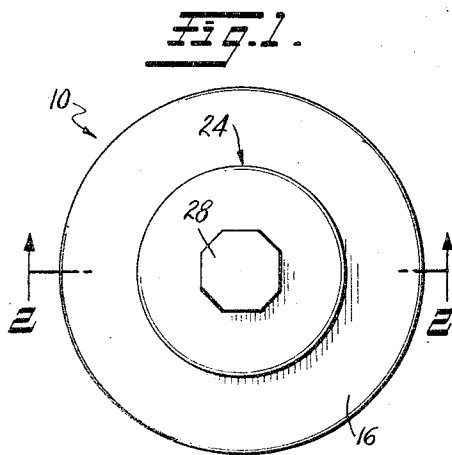
March 4, 1969

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3,430,795

MEDICINE BOTTLE WITH SAFETY CLOSURE MEANS

Filed April 10, 1967



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3,430,795

MEDICINE BOTTLE WITH SAFETY CLOSURE MEANS

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Filed Apr. 10, 1967, Ser. No. 629,717

U.S. Cl. 215—2

Int. Cl. B65d 1/06, 1/20, 55/02

4 Claims

ABSTRACT OF THE DISCLOSURE

A bottle or like container adapted to contain medicinal substances, and designed to prevent or make it difficult for preschool children and others who may not understand the nature of the contents, to gain access to the contents. The bottle has a conventional appearance, however when the cap is removed from the bottle neck in the usual way, no opening is found. The actual bottle opening is located at a different point spaced from the bottle neck. Closure means are provided for the opening which, in order to be operated, must be engaged and turned by a key member that is part of the cap.

The present invention relates to a bottle or like container which may contain substances of potentially harmful nature to which access is limited in such a way as to exclude misuse by children or others who may not understand the nature of the contents.

It is unavoidable to keep materials of a potentially harmful nature around the house, and in other accessible locations, such materials being sometimes of a medicinal nature, sometimes of a poisonous or corrosive nature, and the containers and their contents often prove attractive to children who may consume the contents.

The swallowing of certain drugs and medicines such as aspirin by children is a problem that has received some considerable attention. Other materials of an ordinarily innocuous nature, such as flavoring compositions, detergents, cleaners, bleaches, vitamins, etc., also may have an adverse effect when found by young children. Also definitely poisonous materials, such as insecticides, are necessarily kept in available locations and to keep all such substances locked up or otherwise out of reach by irresponsible persons, is practically impossible.

It is an object of the present invention to limit the accessibility of such materials by the construction of the bottle or container itself. The bottle is so constructed as to require the exercise of a certain degree of skill or ingenuity or experience in opening the bottle, and even if such a bottle is picked up and opened by an adult, a certain amount of deliberation and time is required to perform the necessary manipulation.

By the term "bottle" as used here, reference is made to any form of container adapted to be opened and closed manually. The bottle may be composed of glass, metal, plastic or any other suitable material, and normally will have an opening of somewhat restricted size which receives a closure member that cannot be removed manually and which therefore requires the use of a simple key or tool which is made a part of the combination.

It is an essential feature of the present invention that in a unit bottle or container there are provided two cooperative members, one being a closure means designed to be inserted in the opening, and the other being a key means which engages in cooperative relationship the closure means. A simple and hereinafter described embodiment envisions the provision of a plug member provided with external threads which engage internal threads in the opening in which it is to be fixed. This plug may be recessed so as to form a socket member, which affords

little aid to the fingers of a person attempting to open the bottle, but which makes possible use of the key member whereby the closure may be removed and thereafter reinserted. Manifestly, to the average adult, the key to opening and shutting the bottle will provide no real difficulty, but for the small child the arrangement is such as to prove completely baffling.

The inquisitiveness of the child will probably be satisfied after he has removed the cap member and finds that this does not afford access to the contents.

Further objects and advantages of the present invention will become apparent in the course of the following disclosure:

Referring to the drawings, FIG. 1 is a top plan view of a bottle corresponding to the present invention.

FIG. 2 shows in vertical section a view taken along the line 2—2 of FIG. 1.

FIG. 3 is a bottom plan view of the bottle illustrated in FIGS. 1 and 2.

FIG. 4 is an exploded view of the device illustrated in FIGS. 1 to 3, showing in vertical section the container proper, and the cap and plug in cooperative association.

FIG. 5 is a horizontal sectional view taken along line 5—5 of FIG. 4.

In detail, the construction illustrated consists of a bottle-shaped container 10. The bottle is formed with cylindrical side walls 12, a flat base or bottom wall 14, sloping shoulder walls 16, a neck portion 18 provided with external threads 20, the neck portion providing a passageway 22 with no external opening therein and having external threads 20 adapted to engage internal threads 25 of the cap member 24. The cap member constitutes a key for opening the bottle in the form of a rectangular key portion 28. This key portion upon removal of cap member 24 may be fitted so as to engage socket means or recess 36 and cooperate therewith to rotate the plug member 30, thereby disengaging threads 32 thereon from threads 34 in the bottom of the bottle.

It will be understood that the unitary recess or socket 36 while illustrated as being octagonal, may in fact be of various other shapes, but preferably rectangular in order to afford an operative purchase when inserted in the socket of the closure member 30. The key portion 28 of the cap 24 desirably will be of a shape designed to fit the socket portion 36 of the plug member 30. The cap member 24 thus may be used either to insert or remove the plug member and thereby close or gain access to the contents of the bottle.

The fact that the key member and the plug member have a cooperative relationship will be readily apparent to the average adult, but will not be understood by the majority of children of preschool age.

It is an important feature of the present invention that the false opening on one hand and the actual opening means on the other hand, are spaced apart and to a certain degree may be designated as remote. If it were otherwise, i.e., if the closure member were located contiguous to the key member, it would be much simpler for a small child to perceive that there was a cooperative relationship between the two and proceed forthwith to use the key to open the bottle.

I claim:

1. A bottle or like container designed to prevent, or render it difficult to open same and thereby gain access to the contents thereof, said bottle being of generally conventional appearance, said bottle having a bottle neck and a screw cap thereon, said neck being devoid of opening affording access to the contents of said bottle, said cap constituting an interfitting key means, adapted to engage and rotate a closure piece located at a point in the surface of said bottle remote from said neck, said closure being

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provided with a socket, adapted to receive a similarly shaped key member extending from said screw cap, said closure being rotatable by use of said key when inserted in said socket.

2. A combination according to claim 1 wherein said closure is provided with external threads whereby it may be turned in engagement with matching internal threads in said bottle.

3. A combination according to claim 1 wherein said closure means is provided with a rectangular socket, and the cap member is provided with a rectangular extension insertable in cooperative relation with said rectangular socket.

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4. A combination according to claim 1 wherein the opening in said bottle is located at the bottom thereof.

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U.S. Cl. X.R.

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