Oct. 1, 1968 J. M. HULM 3,403,714

SAFETY RECEPTACLE

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FIG. 1

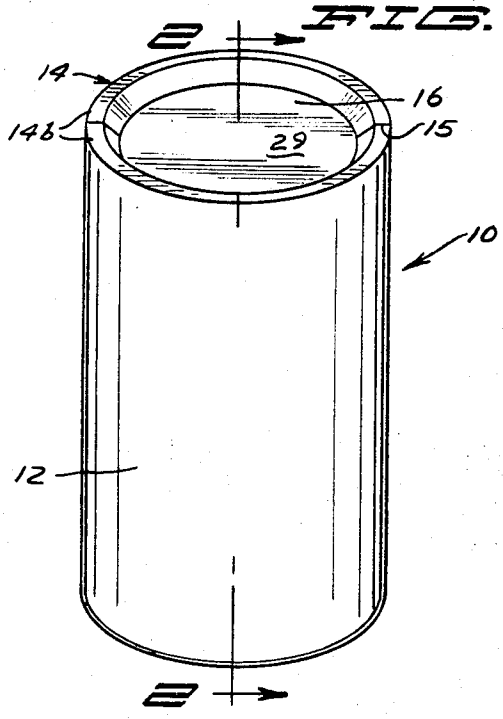


FIG. 2

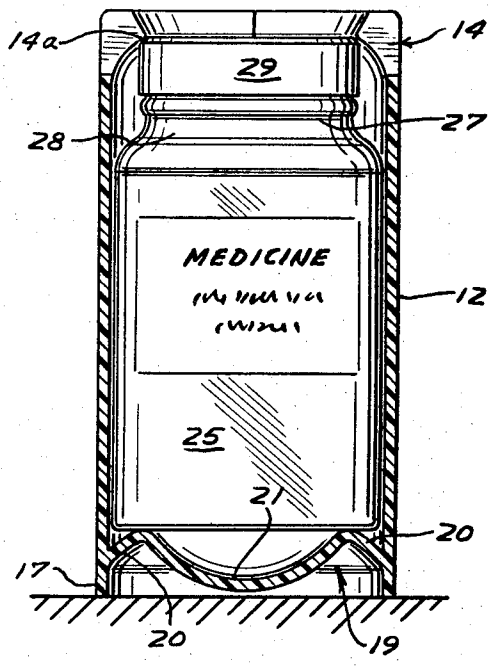
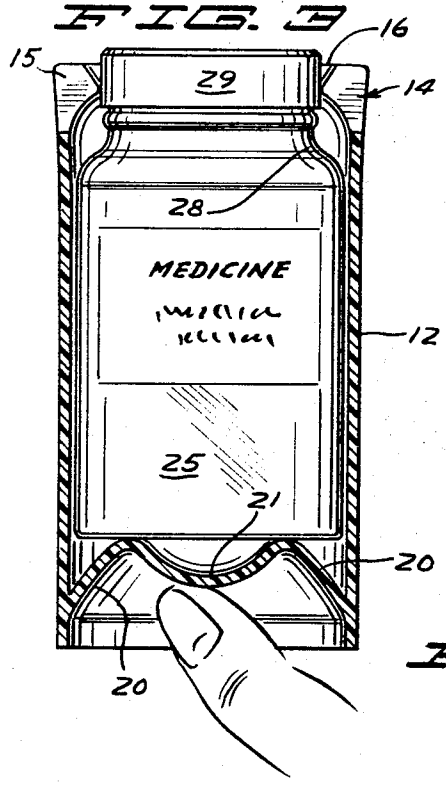


FIG. 3



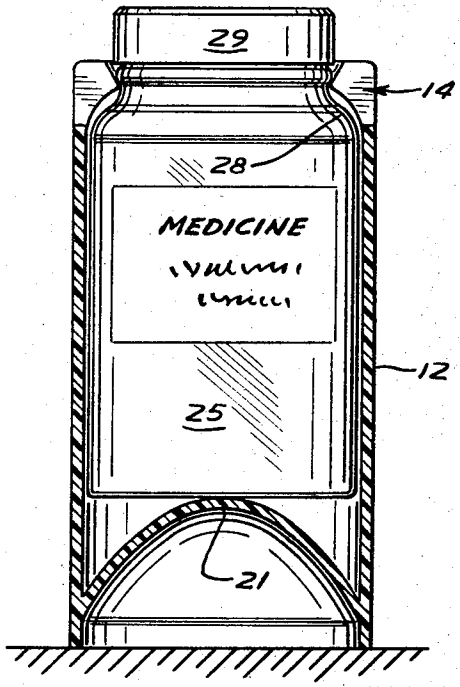


FIG. 4

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FIG. 5

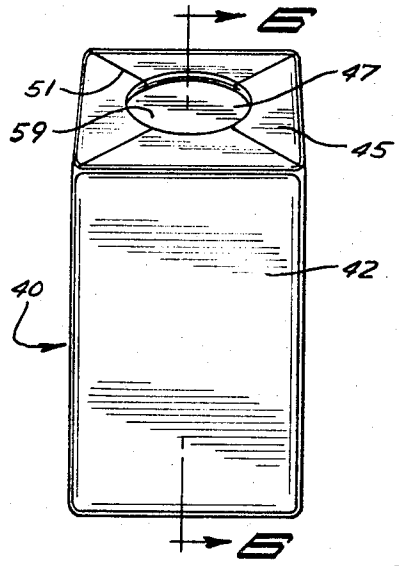
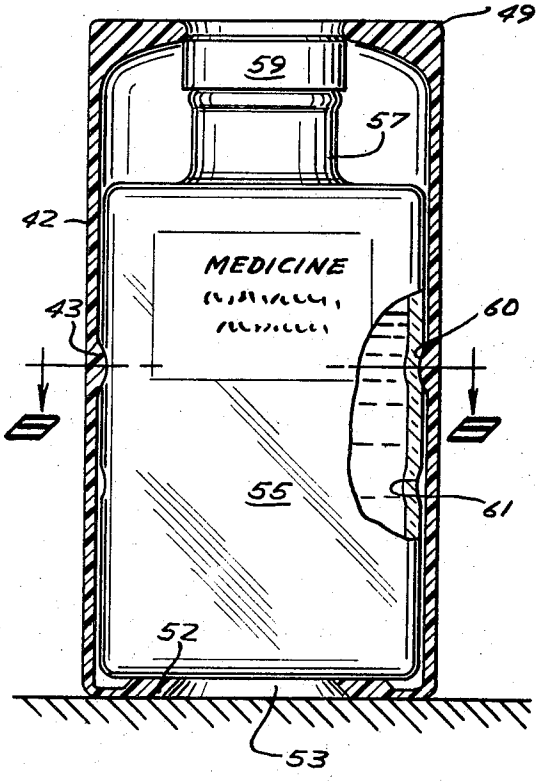


FIG. 6



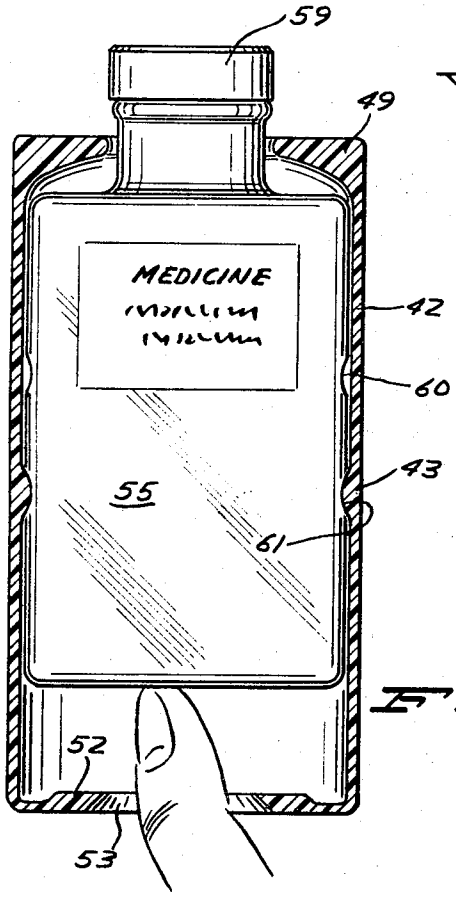


FIG. 8

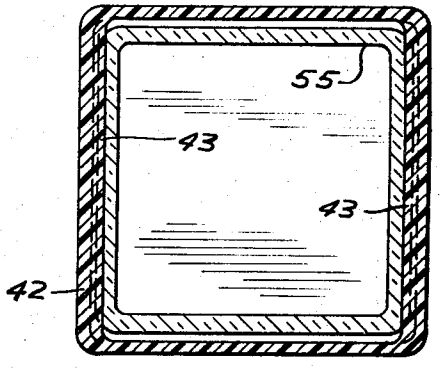


FIG. 7

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SAFETY RECEPTACLE

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4 Claims. (Cl. 150—.5)

ABSTRACT OF THE DISCLOSURE

A safety receptacle for a medicine bottle to receive the same through an expansible mouth portion and wholly contain the same, said mouth portion having an annular lip portion to overlie and engage a peripheral portion of the cap of said bottle and in the alternative engaging and gripping a neck portion of said bottle to support said bottle with said cap being projected above said receptacle and a convex bottom wall invertible by finger pressure to project said bottle upwardly of said receptacle to expose said cap.

Background and summary of invention

The invention herein is classed as a safety receptacle for containing a medicine or drug bottle.

The purpose of the invention is to provide means for safely guarding medicine and drug bottles from being opened by small children. Such bottles are usually kept in a medicine cabinet in a bathroom and are accessible to children. It is desirable to have a receptacle or holder to contain the medicine or drug bottle and which will require a rather unobvious way and the exertion of some effort to expose the bottle sufficiently for the removal of its cap.

It is an object of this invention therefore to provide a simply constructed receptacle to removably contain a medicine or drug bottle.

It is another object of this invention to provide a receptacle arranged and constructed to contain a medicine or drug bottle, said receptacle having an expansible inlet or mouth portion to have the bottle pass therethrough and having means to support the bottle in a partially projected position for the removal of its cap.

With respect to the previous object, it is also an object to provide holding means integral with said receptacle to retain said bottle in a completely contained position and to support the same in a partially projected position.

These and other objects and advantages of the invention will be set forth in the following description made in connection with the accompanying drawings in which like reference characters refer to similar parts throughout the several views and in which:

FIG.1 is a perspective view;

FIG. 2 is a view in vertical cross section taken on lines 2—2 of FIG. 1 as indicated.

FIGS. 3 and 4 are similar to FIG. 2 showing portions thereof in different positions;

FIG. 5 is a perspective view on a reduced scale of a modification;

FIG. 6 is a view in vertical cross section taken on line 6—6 of FIG. 5 as indicated;

FIG. 7 is a view similar to FIG. 6 showing an alternate position of portions thereof; and

FIG. 8 is a view in horizontal section taken on line 8—8 of FIG. 6 as indicated.

Description of a preferred embodiment

With reference to the drawings, the invention herein comprises a receptacle which is indicated generally by the numeral **10** and in its present embodiment it is shown having a cylindrical relatively thin-walled body portion **12**.

Said body or side wall portion is preferably formed of a relatively rigid plastic material.

Said body portion has a flexible upper annular inwardly projecting end wall portion **14** forming a flange or lip **14***a* at its inner end portion with said wall portion comprising a plurality of radial segments **14***b* formed by spaced radial slits **15** whereby said radial segments are movable outwardly away from one another to enlarge the mouth or central opening **16** formed within said upper end wall portion. Said radial segments and the adjacent wall portions are preferably formed of a flexible yielding plastic material. It is a conventional practice to combine flexible and relatively rigid plastic material in an integral molded product.

Said body portion has a lower side wall portion **17** and integral therewith is a bottom wall **18** of a concave or general upstanding dome shape having a relatively rigid lower annular wall portion **20** and a relatively flexible upper or central portion **21**. Reference is had to FIG. 4. Said central portion is invertible downwardly as indicated in FIG. 1 to form a convex bottom wall and this may be regarded as its normal position.

Disposed within said receptacle **10** is a conventional type of medicine bottle **25** here being substantially cylindrical in form and of a size to readily fit within said receptacle **10**. Said lip portions **14***a* will separate radially and the adjacent wall portion **12** will yield sufficiently to permit said bottle to pass through the opening **16** into said receptacle. Said bottle will normally rest on said inverted bottom wall portion **21**, as indicated in FIG. 2. Said mouth or opening **16** will be somewhat smaller in diameter than the diameter of said bottle cap **29** whereby said lip portion **14** will overlie the peripheral upper surface portion of said cap to retain said bottle within said receptacle.

Said bottle has a neck portion **28** having an upper annular bead **28** underlying said cap **29**.

To project said bottle sufficiently to expose said cap for removal, the bottom wall **21** is pressed upwardly and extended by thumb pressure, as indicated in FIG. 3. The lip portions **14***a* are shown separating in FIG. 3 as the cap **29** is projected through said opening **16**.

When said cap **29** is fully projected or exposed, as shown in FIG. 4, the annular lip **14***a* engages and grips the neck portion of the bottle just below the bead **27**. In addition the bottle is supported by said bottom wall. The exposed cap is readily removed.

When the cap has been secured onto the bottle, the bottle is simply pressed downwardly to invert the bottom wall and the cap portion slips down to underlie the lip portion **14***a* and to assume a position fully contained within said receptacle.

It has been found that it is difficult for a small child to determine the relationship between the bottle and receptacle. Further it is not likely that a small child will have sufficient strength to project or extend the bottom wall **21** upwardly. The receptacle is regarded as representing an unusually safe means for holding a medicine or drug bottle.

Modification

A modified form of the invention is shown in FIGS. 5–8 wherein a receptacle **40** substantially parallelepiped in form is shown having a body portion **42** of relatively thin wall construction and being somewhat yielding. The upper or top wall of said body portion comprises a radial annular tapered flange **49** having a plurality of radial slits therein as indicated at **51** dividing said top wall into radial segments **45** which segments define a central opening **47**. Said segments will have a hinge type of flexibility and the adjacent upper portions of the wall or body por-

tion 42 will yield whereby the opening 47 will be enlarged sufficiently for said bottle to pass therethrough.

Somewhat centrally longitudinally of said receptacle 40 projecting inwardly from the inner wall thereof is an annular rib 43. Said body portion has a bottom wall 52 having an annular upwardly projecting shoulder 52 defining a central opening 53 through which a thumb may be passed, as shown in FIG. 7.

Disposed within said receptacle 40 is a conventional type of medicine or drug bottle 55 here being rectangular in cross section having a neck portion 57 having a cap 59 threaded thereon.

Said opening 47 will be somewhat smaller in diameter than the diameter of said cap 59 whereby the free edge portions of the radial segments 45 will overlie the peripheral upper surface portion of said cap.

To be adaptable for use with the receptacle herein, said bottle has formed therein a pair of vertically spaced grooves 60 and 61 to receive said rib 43. The groove 60 will be positioned so that when engaged by the rib 43, the bottle will be entirely contained within said receptacle. Said groove 61 will be positioned so that when engaged by said rib 43, the bottle will be entirely contained within said receptacle. Said groove 61 will be positioned so that when engaged by said rib 43, said cap 59 will be projected above said top wall of said receptacle, as shown in FIG. 7.

Thumb pressure on the bottom of the bottle through the opening 53 will project the bottle upwardly and like pressure on the cap will seat the bottle within said receptacle.

There will be sufficient frictional engagement between the groove 60 and the rib 43 whereby a small child will not have sufficient strength to project the bottle outwardly of the receptacle.

Thus it is seen that I have provided a simply constructed safety device for containing a medicine or drug bottle which may readily be constructed to make it as difficult as may be desired to remove a bottle therefrom.

It will of course be understood that various changes may be made in the form, details, arrangement and proportions of the parts, without departing from the scope of applicant's invention which, generally stated, consists in a device capable of carrying out the objects above set forth, in the parts and combinations of parts disclosed and defined in the appended claims.

What is claimed is:

1. A safety receptacle for a medicine bottle comprising a body portion containing said bottle,

the upper end wall of said body portion having a central opening and rib portions yieldable outwardly to enlarge said opening to enable said bottle to pass therethrough,

the edge portions of said opening of said wall overlying the peripheral portion of the top surface of said bottle,

supporting means integral with and formed interiorly of said body portion supporting said bottle when said bottle is forced through said yieldable central opening so as to be in an alternate raised position having its top projecting above said body portion, and

the bottom wall of said body portion having a central opening flexible portion therein for engagement of said bottle bottom to enable upward movement of said bottle so that a portion of the bottle is forced through said opening.

2. The structure set forth in claim 1, wherein

yielding portions of said upper end wall comprise radial segments movable radially away from one another to enlarge said central opening.

3. The structure set forth in claim 1, wherein

said supporting means comprises an inwardly projecting convex bottom wall,

the central portion of said bottom wall being invertible downwardly to support said bottle contained completely within said body portion and extending upwardly to project and support said bottle in a raised position whereby its top portion projects above said body portion.

4. The structure set forth in claim 1, wherein

said means comprises a horizontal rib on the inner wall of said body portion, and

said bottle having a pair of vertically spaced horizontal grooves to receive said rib in alternate positions of said bottle.

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