

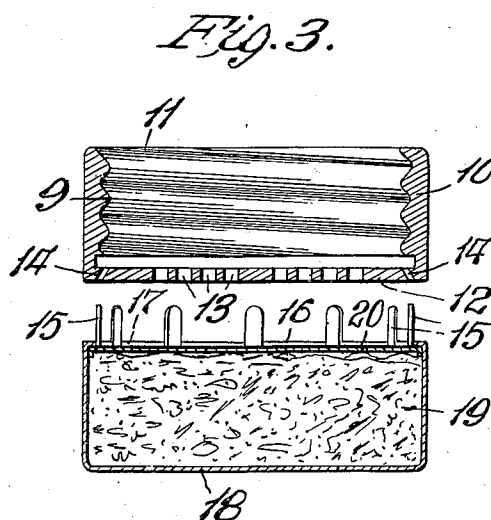
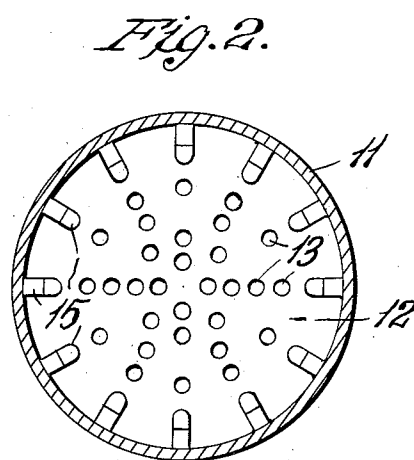
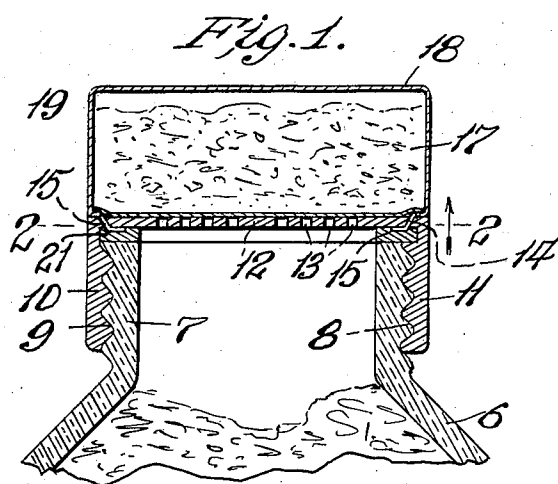
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2,362,796

ABSORBENT CLOSURE CAP

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ABSORBENT CLOSURE CAP

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3 Claims. (Cl. 312—31.1)

This invention relates to absorbent closure caps for receptacles containing dry medicinal materials and the like, and is a furthering of the improvements of my U. S. Letters Patent No. 2,317,882, dated April 27, 1943.

The invention of this cap or stopper goes to the provision of an improved enclosure in connection therewith, for containing an absorbent or dehydrating property to preserve and maintain drugs or medicinal chemicals which may be of granular form and consequently porous, in their original dry state so that the efficiency thereof will not be impaired by moisture from humid air entering the receptacle or bottle to which the cap is removably secured, during dispensing of some of the contents.

A cap of this improved character and as disclosed, may be used as an auxiliary cap for the receptacle after the removal of the original package cap, as the capping or closing of the package or bottle at the place of manufacture is generally carried on in especially provided air conditioned places.

Drug preparations of effervescent character are usually dispensed from wide-mouthed bottles and consequently when the bottle is opened, moisture laden air is admitted into the container on every occasion of dispensing a portion of the contents, and subsequently the active properties of the contents are destroyed, thus undoing the very thing for which the drug manufacturer took pains to prevent.

The improved cap disclosed by this invention can therefore be used as an original cap or stopper or as an auxiliary cap to be applied to and used on a bottle after the original cap has been removed or destroyed, as the absorbent means thereof will dehydrate humid air, if any, which may be formed in a partially filled bottle with which this improved cap may be cooperably secured.

One of the objects of the invention is to provide an improved closure cap for bottles with attached dehydrating means forming a part thereof.

Another object is to provide a closure cap having improved dehydrating means attached thereto.

A further object is to provide an absorbent closure cap for a drug containing receptacle and the cap having an improved dehydrating material chamber forming a part thereof.

A still further object is to provide an absorbent closure cap with an improved detachable dehydrating material chamber.

Still another object is to provide an absorbent

closure cap of assembled parts and whereby part of the assembly may be used for renewability of the cap.

With the foregoing and other objects in view which will appear as the description proceeds, my invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes may be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawing:

Figure 1 is a vertical sectional elevation taken through this improved absorbent closure cap and the upper portion of a receptacle or bottle to which the cap is removably secured.

Figure 2 is an inverted horizontal sectional view taken approximately on the line 2—2 of Fig. 1.

Figure 3 is a vertical sectional elevation taken through the detached parts of this improved absorbent closure cap and showing the parts in position for being secured together.

Referring to the drawing, 6 indicates the upper portion of a bottle or receptacle having a neck 7 which is exteriorly threaded at 8, and for engagement with the thread 8 is the interior thread 9 which is formed in the side wall 10 of a cap 11.

The cap 11 is provided with a top wall 12 having perforations 13 and adjacent the perimeter of the top wall are a series of inclined apertures 14, said apertures being for the insertion of respective tongues 15, a series of which are extended from the open end 16 of a chamber 17. During securing of the chamber 17 to the cap 11, it may be preferable to dispose the chamber with its wall 18 lowermost, in the manner as shown in Fig. 3, and in this position, the dehydrating material or substance 19 which may be of activated aluminum, magnesium or any other suitable agent, is filled in the chamber 17 and a lining of fabric 20 is placed on top thereof.

The cap 11 which may also be inverted and disposed above the chamber 17, is manipulated to engage the tongues 15 in respective apertures 14 of the top wall 12 of the cap, and as the apertures 14 of the cap are inclined upwardly and inwardly when the cap is inverted, the tongues 15 will be forced inwardly in a circumferential row and are pressed downwardly against the inner surface of the top wall 12 of the cap. A gasket 21 is then mounted in the cap 11 at the inner end of the thread 10 and when the cap and its secured-on chamber 17 are mounted on the bottle 6 for use, the gasket will be firmly pressed against the flattened ends of the tongues 15 of the chamber,

and the gasket will sealingly engage the top of the bottle neck, as shown in Fig. 1.

When it is required to replenish the chamber 17 with fresh dehydrating material, the tongues 15 of the chamber may be freed from their secured engagement in the apertures 14 by pulling the container and cap 11 apart, the withdrawing of the tongues from the apertures, strightening the tongues sufficiently so that they may be re-engaged and secured in the apertures 14 after refilling the chamber and replacing the fabric lining for preventing the material falling through the perforations 13.

Having thus described the invention shown, so that those skilled in the art will be able to practice the same, what I desire to secure by Letters Patent is defined in what is claimed, it being understood that various changes in the devices shown and described in detail and not amounting to invention, may be made without departing from the spirit and scope of my invention.

What I claim is:

1. An absorbent cap for a drug receptacle comprising a threaded member having an apertured top wall, a dehydrating material chamber having

a plurality of projections for securing it to said member above the top wall by insertion of the projections in certain of the top wall apertures, and a gasket borne by said member for securely seating the ends of said projections against the underside of the top wall of said member.

2. An absorbent cap for a drug receptacle comprising a threaded member having a perforated top wall, circumferentially disposed inwardly deflecting apertures in said top wall adjacent its perimeter, and a dehydrating material chamber disposed above the top wall of said member and having a series of projections engaged in respective apertures of said top wall.

3. An absorbent cap for a drug receptacle comprising a threaded member having a top wall, circumferentially disposed apertures in said top wall adjacent its perimeter, a dehydrating chamber having bendable projections cooperable with said apertures for securing said chamber to said top wall of said member, and means borne by said member for clamping engagement with the ends of said projections.

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