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H. HANAU

BOTTLE OPENER AND CAP

Filed Feb. 19, 1925

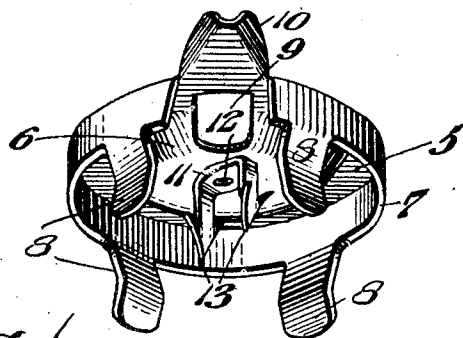


Fig. 1.

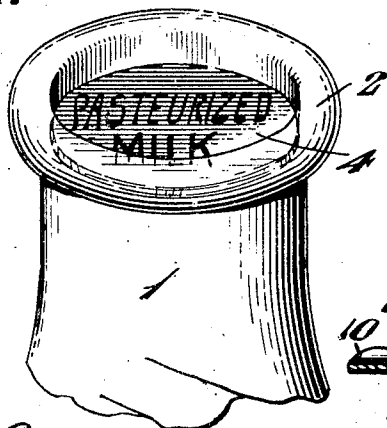


Fig. 2.

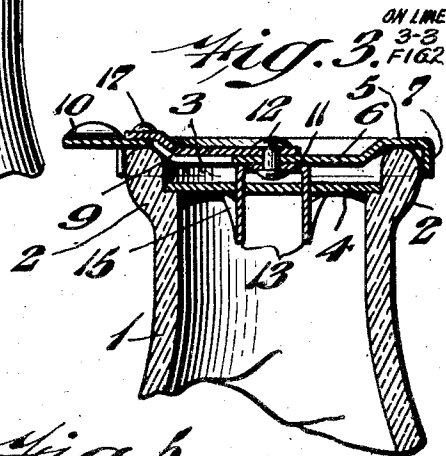
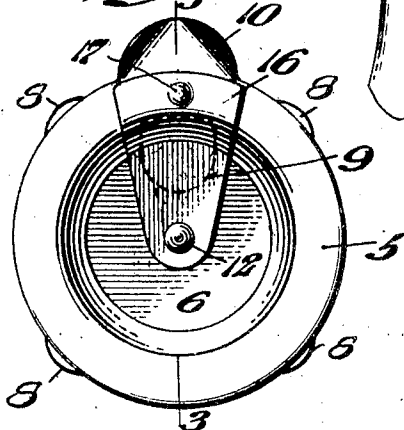
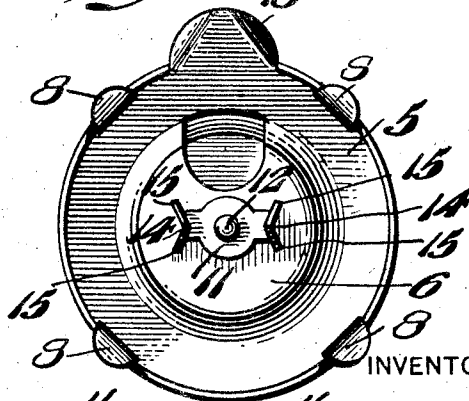
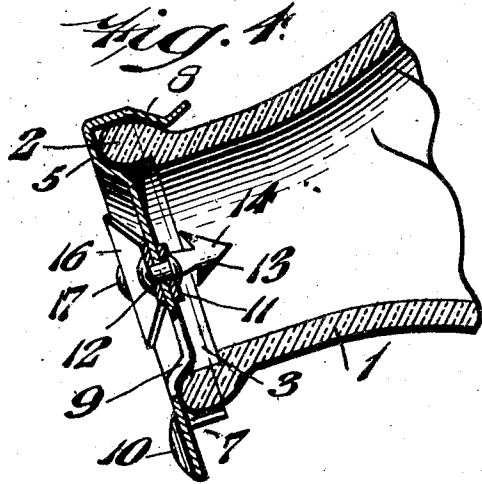


Fig. 5.



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BOTTLE OPENER AND CAP.

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My invention relates to a new and useful bottle opener and cap combined therewith, particularly adapted for use in removing paper and pasteboard bottle closures such as are commonly used on milk and cream bottles and the like, and is further particularly adapted to be used as a closure for such bottles while in use, after the paper or pasteboard closure has been removed therefrom. Thus my novel bottle opener and cap is adapted to lift and remove the pasteboard disc from the mouth of a milk bottle and is thereafter adapted to fit over the mouth of said milk bottle in such a manner as to form a substantially tight closure for said mouth, and at the same time permit the bottle to be emptied through the closure, by the provision of an exit opening in said closure which may be opened and closed at will.

For the purpose of illustrating my invention I have shown in the accompanying drawings forms thereof which are at present preferred by me, since the same have been found in practice to give satisfactory and reliable results, although it is to be understood that the various instrumentalities of which my invention consists can be variously arranged and organized and that my invention is not limited to the precise arrangement and organization of these instrumentalities as herein shown and described.

Referring to the drawings in which like reference characters indicate like parts,

Fig. 1 represents a perspective view of the mouth of a milk bottle with a bottle opener and cap superimposed thereon and ready to be applied thereto, embodying my invention.

Fig. 2 represents a top plan view of my novel bottle opener and cap.

Fig. 3 represents a section on line 3—3 of Fig. 2.

Fig. 4 represents a section similar to that shown in Fig. 3 with the bottle tilted and the exit aperture opened.

Fig. 5 represents a bottom plan view of my novel bottle opener and cap.

Referring to the drawings, 1 designates the neck of a milk or cream bottle, such as are commonly employed in the marketing of milk. 2 represents the mouth flange surrounding the mouth and having the recess 3 therein, which is adapted to receive, and serve as a seat for the paper or pasteboard disc closures 4. My novel bottle opener and cap consists of a body or disc portion 5, of sub-

stantially circular shape and size so as to conform to the mouth of the milk bottle; said body portion having a central annular depression 6 therein, adapted to extend into the mouth of the bottle a slight distance, and downwardly extending annular rim or flange 7 at substantially a right angle to the body portion 5, and adapted to surround the mouth flange 2 of the milk bottle, and the spring clamp members 8, integral with the flange portion 7 of my novel bottle opener, and projecting downwardly in a manner so as to adapt them to engage the mouth flange 2 of the milk bottle, so as to retain said bottle opener and cap on the mouth of said milk bottle in the operating position thereof, as shown in Figs. 3 and 4. The exit opening 9 is provided near the periphery of the body portion 5, while the spout or lip 10 is formed integral with said body portion, in alignment with the exit opening 9 and is adapted to guide the liquid pouring out of said opening.

The lifting member 11 is provided in the center of the body portion, for the purpose of engaging the pasteboard disc closure on the milk bottle so as to permit the removal of the same. The lifting member 11, carried by the pivot pin 12, is provided with two downwardly projecting prongs 13 at a right angle to the bottle opener, having the arrow shaped heads 14, which are so designed as to enter the pasteboard disc when the bottle opener is pressed downwardly over the mouth of the bottle, and to positively engage said paper disc when the bottle opener is withdrawn from the bottle as shown particularly in Fig. 3. In order to secure a more positive engagement between the prongs 13 and the pasteboard disc 4, the arrow heads 14 are bent out of a plane, by having their upwardly projecting points or barbs 15 turned or bent at an angle to the prong as shown particularly in Figs. 1 and 5. By this means the points 15 will engage the pasteboard disc 4 at points adjacent to the slot or aperture cut by the arrow head 14 in entering the pasteboard disc, and thereby prevent the withdrawal of the prongs through the same apertures, when attempting to remove the disc.

In order to secure a complete closure of the milk bottle, while in use, there is provided a pivotally mounted valve plate 16 pivotally carried by the pivot pin 12, and having a contour corresponding to the con-

tour of the body portion 5 and the depression 6, as shown particularly in Figures 2 and 3. Thus when the valve plate 16 is swung over the exit opening 9, as in Figs. 2 and 5 it forms a substantially tight closure for said opening and thereby provides a complete closure for the milk bottle. To pour out the milk or other contents of the bottle it is only necessary to move the valve plate 16 to one side, as shown in Fig. 4, thereby permitting the exit of the liquid through the opening 9. The knob or other projection 17 is provided on the outer edge of the valve plate 16, so as to permit the ready engagement of the valve plate by the finger.

The operation of my novel combined bottle opener and cap is as follows:—The bottle opener is superimposed upon the mouth of the bottle as is indicated in Fig. 1, and is forced down over the mouth into the position shown in Fig. 3, thereby causing the lifting prongs 13 to pierce the pasteboard disc 4 in two places. Thereafter the bottle opener is raised clear of the mouth of the bottle by grasping the bottle opener with the thumb in engagement with the lip 10 and by so doing, lifting the pasteboard disc 4 clear of the mouth of the bottle. The disc 4 is then removed from the prongs and discarded, and the bottle opener and cap is then replaced on the top of the bottle in position shown in Fig. 4; in which position it serves as a closure for the bottle and at the same time permits the removal of the liquid contained therein through the exit opening 9.

It is thus seen that I have devised a new and useful bottle opener which also serves as a closure for the bottle after the pasteboard disc has been removed, and furthermore permits the removal of the liquid contained therein through a suitable exit opening in

said bottle opener; provides a valve or closure for said exit opening so as to produce a complete closure for the bottle while in use; and lastly providing a lip or spout to guide the liquid as it is being poured out of the bottle.

It will now be apparent that I have devised a novel and useful construction of bottle opener and cap, which embodies the features of advantage enumerated as desirable in the statement of the invention and the above description, and while I have, in the present instance, shown and described preferred embodiments thereof which will give in practice satisfactory and reliable results, it is to be understood that the same are susceptible of modification in various particulars without departing from the spirit or scope of the invention or sacrificing any of its advantages.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

In a device of the character stated, a substantially circular body, a plurality of spring clamp members integral therewith and extending downwardly substantially at a right angle thereto, an exit opening through said circular body portion, a lip portion extending from said body portion in alignment with said exit opening, a plurality of downwardly extending lifting prongs formed integral with each other and having a common horizontally extending connecting portion, arrow shaped ends on said prongs having the barbs thereof at an angle to each other and inclined to the body of the prongs, a pivotally mounted valve plate adapted to close said exit opening, and fastening means extending through said circular body portion and common to said valve plate and said lifting prongs.

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