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F. P. CARR

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COMBINED BOTTLE CLOSURE AND EYECUP

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Fig. 1.

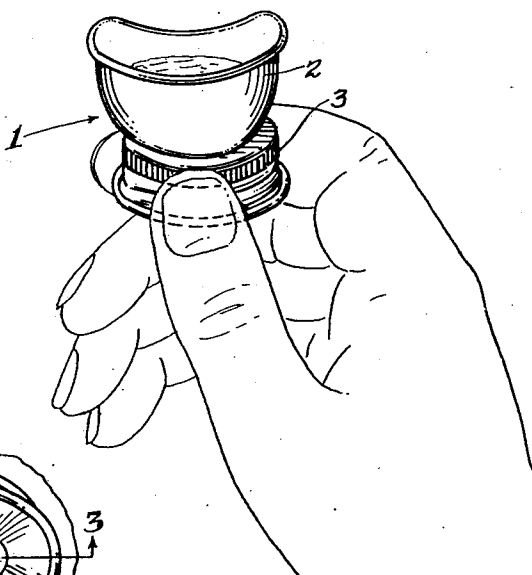


Fig. 2.

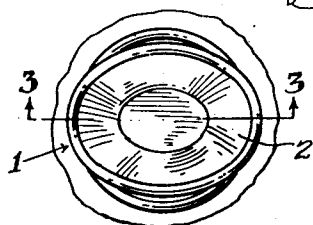


Fig. 3.

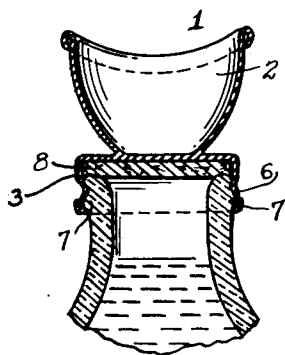
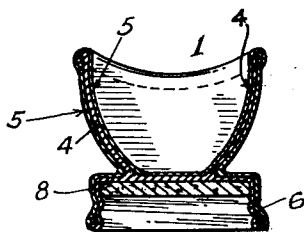


Fig. 4.



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COMBINED BOTTLE CLOSURE AND EYECUP

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1 Claim. (Cl. 128—249)

This invention relates to a combined bottle closure and eye-cup.

It is known in the art to provide a stopper for a bottle to contain eye wash, for integrally or as a unit with an eye-cup, surmounting the stopper. In the use of this device, the stopper is removed and the eye wash poured from the bottle into the eye wash while the device is held in the hand. Contamination of the stopper by the fingers is practically unavoidable and when the stopper is replaced, this contamination is transferred to the inside of the neck of the bottle, and communicated to the eye wash when the liquid is next poured.

The present invention has for its object an improvement over the known construction, comprising making the bottle closure in the form of a cap fitting over the mouth of the bottle so that no part enters into the neck of the bottle, and that part which contacts and covers the pouring lip is on the inside of the cap where it is protected from being touched by the fingers in the act of using the cup.

The broad base of the cap closure also affords a stable support for the eye-cup so that it may be rested upon a table or other desired object while being filled.

Other objects of the invention will appear as the following description of exemplary embodiments thereof proceeds.

In the drawing which accompanies and forms a part of the following specification, and throughout the several figures of which the same characters of reference have been employed to designate identical parts:

Figure 1 is a perspective view of a combined bottle closure and eye-cup embodying the principles of the invention;

Figure 2 is a top plan view;

Figure 3 is a section taken along the line 3—3 of Figure 2; and

Figure 4 is a vertical section through a slightly modified form of the invention.

Referring now in detail to the several figures the numeral 1 represents the combined device, comprising the eye-cup 2 and the bottle cap 3. These are formed as a unit in any desired manner and are preferably integral. The bottle cap may be made in the usual manner, of thin yieldable metal as is indicated in the drawing particularly in Figure 3, having pressed in threads 6 interengageable with corresponding threads 7 formed on the neck of the bottle. If desired, the com-

bined device may be of non-metallic moldable material or as shown in Figure 4, it may comprise a metal core 4 plated or coated with a suitable non-metallic substance 5 such for example, as a phenolic condensation product, a condensation product of uric acid with formaldehyde or any desired lacquer or other coating substance. It is of course desirable that the coating substance shall be inert toward the liquid which the eye-cup is adapted to contain. The invention is not committed to the use of screw threads as a means of securing the closure to the bottle since any other effective means of attachment may be employed. The usual sealing disk 8 is shown in Figures 3 and 4, but its use is optional and imposes no restriction upon the scope of the invention.

It is obvious that a cap closure affords a broader base of support than a stopper which fits into the neck of the bottle, so that the device may be set upon a table or other flat surface for filling, without the risk of up-setting the eye-cup.

The most important feature of the invention however is the fact that the cap provides a protection for the pouring lip of the bottle and that in handling the device, as shown in Figure 1, the fingers do not come in contact with those surfaces of the cap which engage the pouring lip or any part of the bottle traversed by the eye wash in pouring. Consequently, the risk of contaminating the eye-cup with the fingers, which is always present in using a combined eye-cup and bottle closure of the stopper type is entirely removed in the present invention.

While the above description illustrates the invention in connection with an eye wash bottle and as an applicator for eye wash, it is not to be construed as limited to this specific employment, since it is useful wherever it may be practicable or desirable to apply a body of liquid medicament in a cup, to any part of the body.

What I claim is:

Integral eye-cup and bottle cap, the latter being of thin yieldable material threaded for screwing on the neck of a bottle, the top of the bottle cap lying in a plane normal to the axis of said cap, and the area of contact of the base of the cup with the top of the bottle cap being sufficiently smaller than said top to leave a free annular zone between said area of contact and the outer zone pressed upon by the mouth of the bottle.

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