Aug. 3, 1965 F. J. ST. JACQUES 3,198,369

BOTTLE CAP

Filed Aug. 2, 1963

FIG. 1

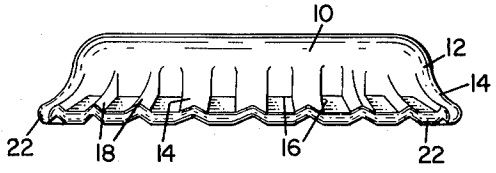


FIG. 2

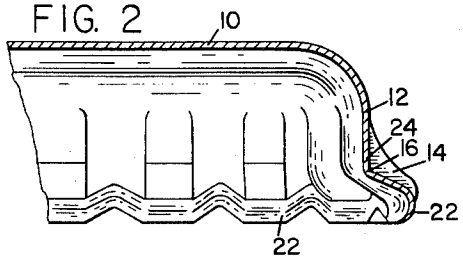
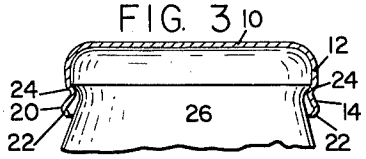


FIG. 3



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BOTTLE CAP

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1 Claim. (Cl. 215—39)

This invention relates to a new and improved crown cap particularly adapted for bottles, and the principal object of the invention resides in the provision of such a cap which is provided with means to obviate the sharp outstanding edges of prior art caps by which the operators of the capping machinery and also the retailer and consumer have been scratched or cut.

In the prior art the crown is provided with an outwardly extending skirt or flange and the metal is so thin that the outstanding edges are sharp and may injure the hands of persons operating the capping machine, etc., and it is the principal object of the present invention to provide a bottle cap which operates in and is utilized in the same machinery as said crowns of the prior art but which at the same time is shaped in such a way as to avoid any outstanding sharp edges.

This is accomplished by providing a new and improved crown which has an inwardly directed flange at the peripheral edge thereof, presenting a smooth extreme or outermost protective edge for the cap which is not used for gripping the lip of the bottle to which the cap is applied. This protective edge extends below the bottle lip gripping means for the cap and is located closely adjacent the bottle below the lip in completely protective position. The crowns have inwardly directed shoulders extending circumferentially around the same, which grip under the lip of the bottle in a manner similar to the crown cap of conventional widespread use.

Other objects and advantages of the invention will appear hereinafter.

Reference is to be had to the accompanying drawings, in which:

FIG. 1 is a view in side elevation illustrating the novel cap;

FIG. 2 is a section through the cap, and

FIG. 3 is a diagrammatic view illustrating the new cap applied to the pouring lip of a beverage container.

The cap of the present invention is in many respects the same as the ordinary crown cap of the prior art. It is preferably made of sheet metal or possibly plastic and includes a top flat portion generally indicated at **10** which is closed and continuous and which is in the nature of the bottom of a cup, this cup having the peripheral flange turned at the edges thereof as indicated at **12**.

The annular flange **12** extends into an outwardly extending portion generally indicated by the reference numeral **14** more or less similar to the ordinary crown cap, being in the nature of a skirt which is to be levered down onto the lip of a bottle in order to connect the same thereto, and this portion of the cap is indented as indicated at **16** forming a series of teeth or the like **18** separated by indentations or grooves.

However, in the ordinary cap, this skirt or flange continues on outwardly, terminating in sharp edges, at about the area indicated at **20**, whereas in the present case the edge is rolled under or turned under to form an inwardly directed lip or the like generally indicated by the reference numeral **22**, and it is this lip which is the improvement in the present invention over the conventional crown.

Referring now to FIG. 2, the new cap is shown in position before application to the lip of the container, and in FIG. 3 it is shown applied thereto, and it will be noted that the crown embodies a series of little shelves or shoulders at **24** which actually form the gripping action on the lip **26** of the container. It is to be emphasized that the extreme rolled edge of lip **22** of the flange does not grip anything, but is merely turned under in the protective position indicated in FIG. 3 so as to prevent any injury of a person's hands when in position on the bottleneck. However, the same inwardly directed terminal flange or lip **22** protects the operator or user from injury due to sharp edges at the extreme periphery of the blank or crown prior to its use.

Thus it will be seen that in the conventional crown the extreme peripheral edge is outwardly directed, whereas in the present crown it is substantially inwardly directed, providing the safety feature described above.

Thus the edge is rounded, not sharp, and is burr free, preventing injury to persons handling capped or crowned bottles, and is particularly beneficial to purchasers of the six or eight bottle cartons in which the carrying handle is so close to the bottle tops that the hand can be cut or scratched and particularly to knuckles may be injured in picking up and carrying the cartons using the prior art crowns.

Route salesmen are subject to cutting of the fingers when removing a few remaining full bottles from containers such as the usual wooden cases, when the conventional crowns are used, and this invention benefits such persons also.

In modern bottle machines, bottles having the conventional sharp edge crowns are often accidentally opened by these machines due to sharp edges on crown hanging against the metal bottle plates. This problem also arises in the rough handling of palletizing cases of bottles, where again the caps or crowns are accidentally pulled off.

This burr free crown is easily opened with ordinary bottle openers, but discourages unorthodox methods of opening bottles, such as with pliers, sharp edges of metal, etc., eliminating possible accidental injury from broken tops of bottles, etc.

Having thus described my invention and the advantages thereof, I do not wish to be limited to the details herein disclosed, otherwise than as set forth in the claim, but what I claim is:

A crown cap for application to a bottle having a pouring lip and comprising a generally plane top portion and a depending flange at the periphery thereof, said flange being substantially continuous about the top portion and including a generally cylindrical portion, a plurality of spaced indentations in a part of the flange forming an indented peripheral crimped area in the flange, the portion of the cap including the indentations extending generally outwardly and downwardly away from the generally cylindrical portion of the flange, a generally inwardly directed terminal protective lip portion for the flange extending inwardly at an angle from the crimped area of the indented portion, and means at the interior of the generally cylindrical portion and the indented portion of the cap forming shoulder means for gripping the pouring lip of a bottle to which the cap is secured, the protective lip portion being below the shoulder means, and being so shaped that when the cap is on the bottle the lip portion projects downwardly and inwardly toward the center of the bottle and terminates at its lowest edge in close proximity to the surface of the bottle.

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