BOTTLE CAP REMOVING DEVICE

Filed June 12, 1944
The invention relates to bottle cap removing devices and refers more particularly to devices for removing corks. Taps from bottle and stop are engageable respectively with the edge and back of a crown cap of a capped bottle when inserted into the body and swung downwardly in a counterclockwise direction, as viewed in Figure 2. The body is preferably formed in its lower wall with the transverse opening 16 and the portion of the lower wall in advance of the opening is preferably beveled at 11. The body is also formed with the lateral ears 12 which are formed with suitable holes for receiving securing means, such as the screws 13, to fasten the body to a support, such as the board 14.

The body 3 is formed of suitable insulation material and has the depending furcations 15 which extend through an opening in the upper wall of the body 2 and terminate adjacent the projections 8. The body 3 has its portion above the furcations formed with the chamber 16 for receiving the relatively movable contacts 17 and 18 of an electric switch. The contact 17 is L-shaped and has one leg adjacent the top of the body 3 secured thereto by the screw 19. The contact 18 is movable relative to the contact 17 and is in the nature of a plunger slideable in the recess 20 in the upper portion of the lever 21. The lever is formed of a suitable insulation material and extends between the furcations 15 and is pivoted thereto by the pivot 22. The lower portion of the lever extends between the projections 8 and in the normal position of the lever extends forwardly beyond the stop 6 formed by the outer ends of the projections so that when the capped bottle is inserted into the body 2 and swung downwardly in a counterclockwise direction, as viewed in Figure 2, the back of the cap engages the lower end portion of the lever 21 forcing the same rearwardly and thereby swinging the lever to move its upper portion forwardly and bring the contact 18 into engagement with the contact 17. The lever is resiliently held in normal position by means of the spring 23 which is secured at one end to the body 3 and is engageable at the other end with the portion of the lever below the contact 18. A suitable pin 24 extending between the furcations 15 limits the swinging of the lever under the influence of the spring.

To provide for swinging of the lever after the contact 18 has engaged the contact 17, there is the coil spring 25 located in the recess 23 and encircling the shank 26 of the contact 18 and tending to resiliently urge the contact forwardly. 27 and 28 are the wires of the circuit including the electric display or advertisement, the former being connected to the contact 17 through the screw 19 and the latter being connected to the contact 18 through the nuts 29 and 30 threaded upon the shank 25.

In operation, a bottle with its crown cap 9 is inserted into the device with the cap engaging the shoulder 5 and the outwardly facing surface at the lower end of the lever 21 and the bottle is then swung downwardly in a counterclockwise direction, as viewed in Figure 2, thereby swinging the lever to move the contact 18 against the contact 17. Upon engagement of the contacts the electric circuit, including the electric display or advertisement, is closed and the display or advertisement becomes illustrated. During the swinging of the bottle its cap engages the stop 6.
formed by the projection 8 and the cap is removed through the cooperation of the stop 6 and the shoulder 5, after which the bottle may be removed and the cap drops from the device.

The construction is such as to provide for easy removal of a crown cap from a bottle and also to provide for moving the contacts of the electric display or advertisement circuit into engagement to close the circuit while the crown cap is being removed. Furthermore, the contacts are located in the upper portion of the housing and are well protected to avoid liability of the contacts being damaged or having their operativeness destroyed.

What I claim as my invention is:

1. A device for removing a bottle cap comprising a hollow body having adjacent one end a shoulder and a stop engageable respectively with the edge and back of a cap upon insertion of a capped bottle into said body, a hollow cover secured to said body and having furcations extending within said body, relatively movable electric contacts within said cover, and a lever pivotally mounted upon said furcations and carrying one of said contacts and extending within said body for engagement by the cap upon insertion of the capped bottle into said body.

2. A device for removing a crown cap from a bottle comprising a hollow body having adjacent one end a shoulder and laterally spaced projections forming a stop engageable respectively with the edge and back of a cap upon insertion of a capped bottle into said body, a hollow cover secured to said body and having depending furcations extending within said body, a lever pivotally mounted upon said furcations and having a portion extending between said projections and normally in advance of the stop formed thereby, a contact secured to said cover, and a second contact carried by said lever and engageable with said first mentioned contact.

RICHARD R. COLEY.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,009,873</td>
<td>Webster</td>
<td>Nov. 28, 1911</td>
</tr>
<tr>
<td>1,106,127</td>
<td>Baken</td>
<td>Aug. 4, 1914</td>
</tr>
</tbody>
</table>