Oct. 19, 1954 W. A. HISLOP 2,691,820

BOTTLE SEAL CUTTING DEVICE

Filed July 21, 1953

Fig. 1.

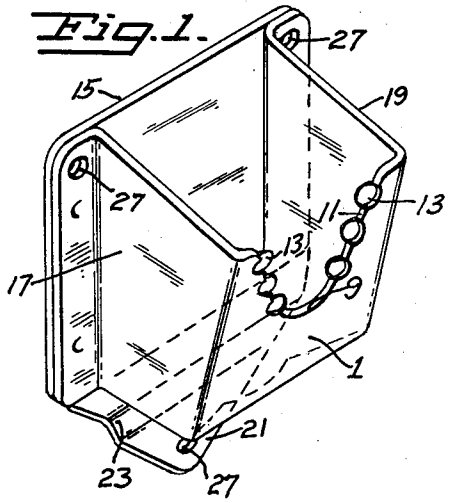
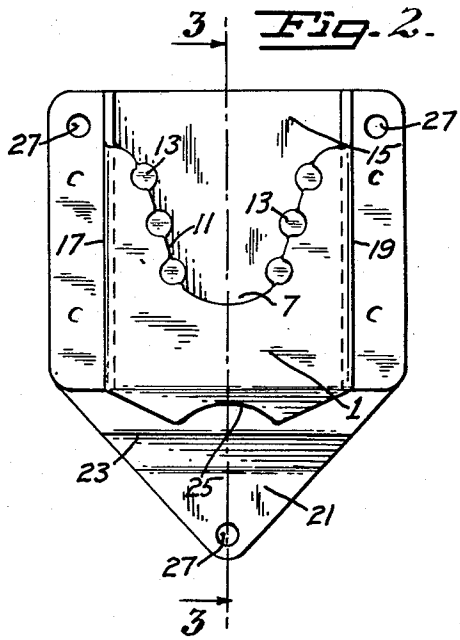


Fig. 2.



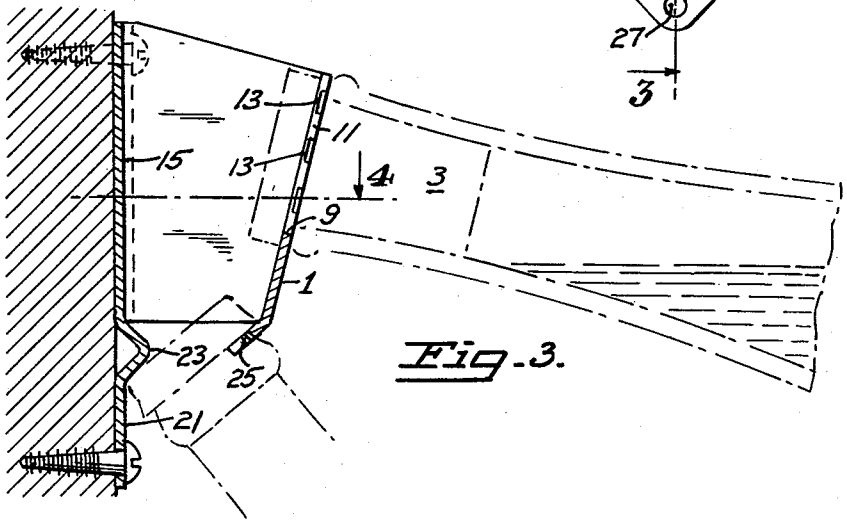


Fig. 3.

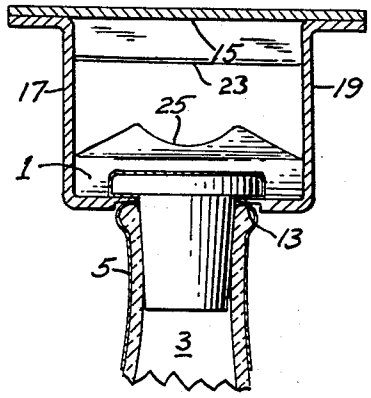


Fig. 4.

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BOTTLE SEAL CUTTING DEVICE

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6 Claims. (Cl. 30—1.5)

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My invention relates to bottle seal cutting devices and more particularly to one for use in slitting the plastic or foil seals conventionally employed in sealing the corked end of liquor or beverage bottles.

The corks employed in such bottles are each customarily capped with a disk which forms a flange overlying the lip of the bottle to which the cork is fitted, and the seal is applied thereover. In severing this seal, most efficient results will be realized when the cutting is effected along the seam between the cork flange and the lip of the bottle, but in so doing, care must be exercised against cutting deeply into the cork as this might render removal of the cork a troublesome undertaking.

Among the objects of my invention are:

1. To provide a novel and improved means for use in cutting bottle seals of the foil or plastic coating type;

2. To provide a novel and improved means for use in cutting bottle seals of the foil or plastic coating type, and which embodies safeguards against cutting into the cork which closes such bottle;

3. To provide a novel and improved bottle seal cutter which will make possible the cutting of a seal rapidly and conveniently; and

4. To provide a novel and improved bottle seal cutter which will enable one to partially loosen a cork while in the act of cutting the seal.

Additional objects of my invention will be brought out in the following description of a preferred embodiment of the same taken in conjunction with the accompanying drawings wherein,

Figure 1 is a three dimensional view depicting my invention in its preferred form;

Figure 2 is a front elevational view of the same;

Figure 3 is a view in section taken in the plane 3—3 of Figure 2; and

Figure 4 is a view in section taken in the plane 4—4 of Figure 3.

Referring to the drawings for details of my invention in its preferred form, the bottle seal cutter illustrated comprises a wall 1 having a V-notch in the upper edge thereof, this notch at its open end being substantially wider than the diameter of the corked end 3 of a bottle having a seal 5 thereover, and at its lower end, the notch terminates in a trough 7 having a dull edge 9 and a radius of curvature approximating that of the corked end of the bottle.

Extending inwardly from the side edges 11 only of the notch are cutting means, such cutting means including a tapered cutting edge extending

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from each of the normal side edges of the notch a distance approximating the radial thickness of the bottle adjacent the lip end thereof and being of less thickness throughout than the normal thickness of the wall in which the notch is provided, to form a shoulder with the edge of the notch.

While such cutting means along each edge of the slot might be in the form of a straight knife edge, I prefer to form such cutting means as a plurality of tapered cutting tabs 13. These may be formed from the original edge at each side of the notch by a stamping operation, the stamping die being formed to impart a cutting edge to each tab in the one stamping operation.

In utilizing the seal cutter for its intended purpose, the sealed end of a bottle is pressed into the notch, with the tabs coinciding with the seam formed by the cork flange with the lip of the bottle. As the bottle is pressed down into the notch and simultaneously rotated, the seal will be cut along the seam, while at the same time, the tapered cutting edges will tend to "start" the cork and thus facilitate the removal of the same.

Cutting of the cork is avoided by limiting the length of the cutting means to the length previously indicated, the original edge 11 of the notch also aiding in this connection by acting as a stop against forced side movement of the bottle.

Likewise, when the bottle reaches the bottom of the notch, the cork is protected against cutting by the original thickness of the wall against which it engages.

The plurality of cutting tabs employed by me in the preferred embodiment of my invention, function more efficiently and effectively than a continuous straight edge, in that the tabs will readily puncture or perforate the seal material and thus more effectively initiate the cutting operation.

In the preferred form of my invention as illustrated, the notched wall 1 is incorporated in a structure for mounting on a wall. Such structure includes a wall mounting plate 15 from which extend a pair of side walls 17 and 19, which in turn are spanned by the notched wall 1; constituting the front wall of the device.

This front wall is preferably sloped downwardly toward the wall mounting plate to enable presenting a bottle thereto at an upwardly directed angle, to preclude possible leakage or loss of contents upon cutting of the seal or loosening of the cork.

The side walls and the notched front wall may be formed from a single strip of metal and spot

welded to the wall mounting plate, the side walls being flanged for this purpose.

Included in the device under consideration, is an added feature for enabling the removal of crimped bottle caps. Toward this end, the wall mounting plate is formed with a lower triangular appendage **21**, which is crimped to form a horizontal ridge **23**, while the lower edge of the front wall is extended below the side walls and provided with an arcurate notch **25** conforming to the curvature of the bottle cap. The extended end of the front wall is bent inwardly so that the same may be conveniently engaged under the crimped edge of a cap to be removed, while the diametrically opposite portion of the cap rests against the ridge which functions as a fulcrum in effecting removal of the crimped cap from the end of the bottle.

Mounting holes **27** may be provided through the wall flanges and at the lower end of the appendage **21**.

From the foregoing description of my invention in its preferred form, it will be apparent that the same fulfills all the objects of the invention as previously set forth, and while I have described and illustrated this embodiment of my invention in considerable detail, the same is subject to alteration and modification without departing from the underlying principles involved and I accordingly do not desire to be limited in my protection to the specific details so illustrated and described except as may be necessitated by the appended claims.

I claim:

1. A bottle seal cutting device comprising a wall having a V-notch therein, said notch at its wide end being wider than the diameter of the corked end of a bottle having a seal thereover, and at its lower end terminating in a trough having a radius of curvature approximating that of said end of the bottle, and cutting means extending inwardly from the side edges of said notch for perforating and slitting such seal along the lip of such bottle as the lip end of said bottle is forced down to the bottom of said notch and simultaneously rotated, said cutting means including a plurality of tapered cutting tabs, each extending from the normal edge of said notch a distance approximating the radial thickness of the bottle adjacent the lip thereof.

2. A bottle seal cutting device comprising a wall having a V-notch therein, said notch at its wide end being wider than the diameter of the corked end of a bottle having a seal thereover, and at its lower end terminating in a trough having a dull edge and a radius of curvature approximating that of said end of the bottle, and cutting means extending inwardly from only the side edges of said notch for perforating and slitting such seal along the lip of such bottle as the lip end of said bottle is forced down to the dull edge at the bottom of said notch and simultaneously rotated, said cutting means including a plurality of tapered cutting tabs, each extending from the normal edge of said notch a distance approximating the radial thickness of the bottle adjacent the lip end thereof.

3. A bottle seal cutting device comprising a wall having a V-notch in the upper edge thereof, said notch at its open end being substantially wider than the diameter of the corked end of a bottle having a seal thereover, and at its lower end terminating in a trough having a dull edge and a radius of curvature approximating that of said end of the bottle, and cutting means extending inwardly from only the side edges of said notch for perforating and slitting such seal along the lip of such bottle as the lip end of said bottle is forced down to the dull edge at the bottom of said notch and simultaneously rotated, said cutting means including a plurality of tapered cutting tabs, each extending from the normal edge of said notch a distance approximating the radial thickness of the bottle adjacent the lip end thereof.

4. A bottle seal cutting device comprising a wall having a V-notch in the upper edge thereof, said notch at its open end being substantially wider than the diameter of the corked end of a bottle having a seal thereover, and at its lower end terminating in a trough having a dull edge and a radius of curvature approximating that of said end of the bottle, and cutting means extending inwardly from only the side edges of said notch for perforating and slitting such seal along the lip of such bottle as the lip end of said bottle is forced down to the dull edge at the bottom of said notch and simultaneously rotated, said cutting means including a plurality of tapered cutting tabs, each extending from the normal edge of said notch a distance approximating the radial thickness of the bottle adjacent the lip end thereof and being of less thickness throughout than the normal thickness of said wall.

5. A bottle seal cutting device comprising a wall having a V-notch in the upper edge thereof, said notch at its open end being substantially wider than the diameter of the corked end of a bottle having a seal thereover, and at its lower end terminating in a trough having a dull edge and a radius of curvature approximating that of said end of the bottle, and cutting means extending inwardly from only the side edges of said notch for cutting through such seal along the lip of such bottle as the lip end of said bottle is forced down to the dull edge at the bottom of said notch and simultaneously rotated, said cutting means including a tapered cutting edge extending from the normal edge of said notch a distance approximating the radial thickness of the bottle adjacent the lip end thereof, and means for deterring side movement of such bottle as the same is forced downwardly in said notch.

6. A bottle seal cutting device comprising a wall having a V-notch in the upper edge thereof, said notch at its open end being substantially wider than the diameter of the corked end of a bottle having a seal thereover, and at its lower end terminating in a trough having a dull edge and a radius of curvature approximating that of said end of the bottle, and cutting means extending inwardly from only the side edges of said notch for cutting through such seal along the lip of such bottle as the lip end of said bottle is forced down to the dull edge at the bottom of said notch and simultaneously rotated, said cutting means including a tapered cutting edge extending from the normal edge of said notch a distance approximating the radial thickness of the bottle adjacent the lip end thereof and being of less thickness throughout than the normal thickness of said wall and forming a shoulder with the edge of said notch.

No references cited.