

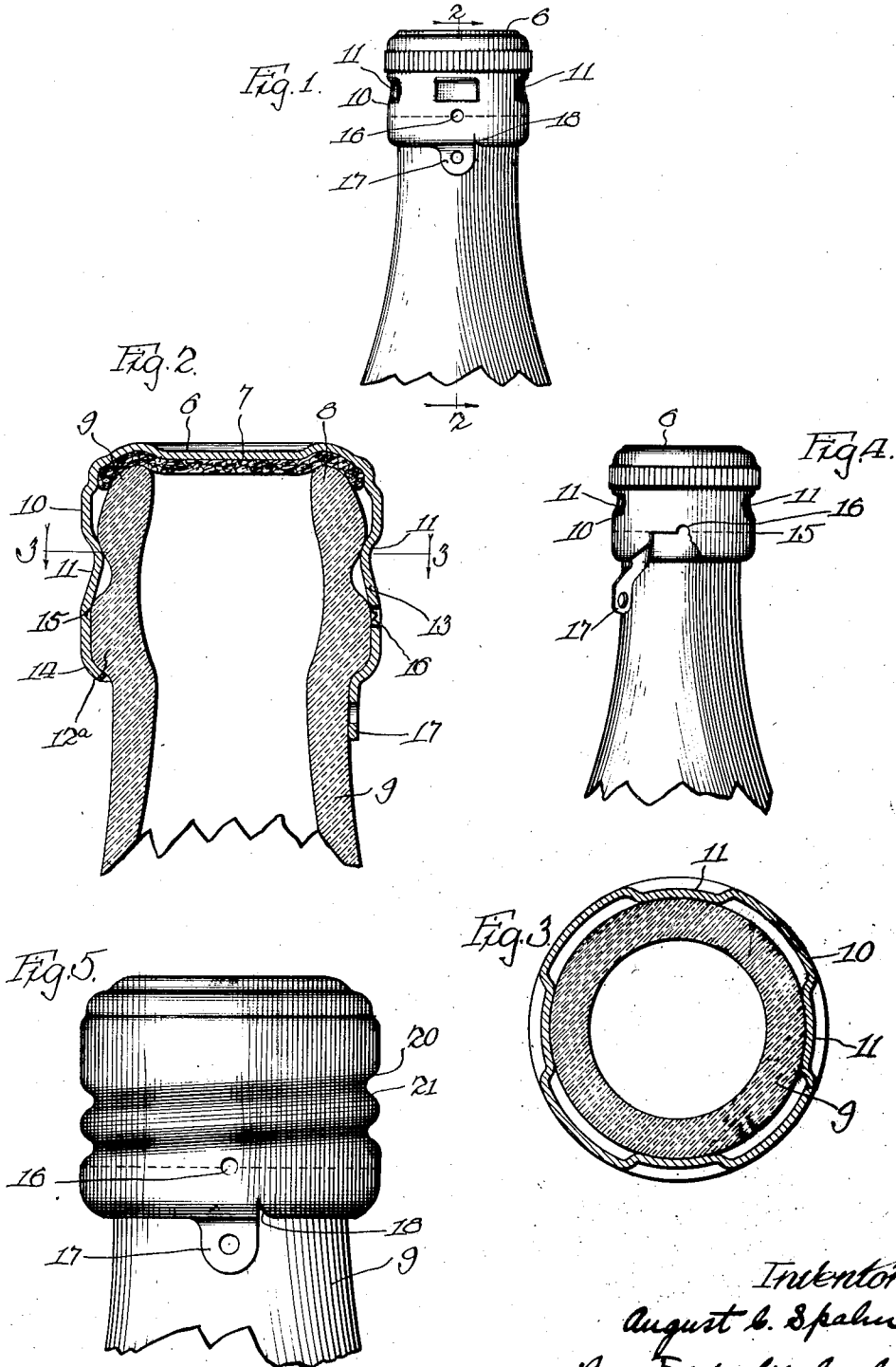
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BOTTLE CAP

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BOTTLE CAP.

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The present invention relates to bottle-caps and more particularly to those which are designed to enable the user to readily apply and remove the cap during the consumption of the contents of the bottle.

One object of the present invention is to provide, with bottles of this character, means which will act as a seal until the bottle has reached the consumer, so that he may know whether access has been had to the contents of the bottle before he purchases it.

With this object in view, one feature of the invention consists in forming the skirt of the cap with an integral portion which normally serves to prevent the removal of the cap from the bottle and which may be torn off so that the cap can thereafter be placed onto and removed from the bottle as necessary during consumption of the contents.

Other objects of the invention will appear from the detailed description.

In the drawing: Fig. 1 is a side elevation of a cap embodying the invention applied to a bottle. Fig. 2 is a vertical section taken on line 2—2 of Fig. 1. Fig. 3 is a horizontal section taken on line 3—3 of Fig. 2. Fig. 4 is a side elevation showing the manner of removing the sealing and locking strip from the cap. Fig. 5 is a section showing a modified form of the invention.

The invention is exemplified in a cap formed of metal, such as tin-plate, of sufficient stiffness to hold a disk 7 of cork or other suitable material, with sufficient firmness on the rim 8 of a bottle 9 to form an airtight closure for the contents of the bottle. The cap comprises a top 6 and an integral skirt or depending flange 10 integral with the top. The skirt is formed with indented portions 11 which are adapted to tangentially engage the annular incurved portion 12 on the bottle neck. There is sufficient spring in the skirt to permit the cap, when held solely by these indented portions, to be forced off the bottle. The lower portions 13 of these indentations are inclined to spread the skirt in the placement of the cap on the bottle when the cap is otherwise free, as it is during the period of consumption of the contents of the bottle.

The skirt 10 of the cap is of sufficient length to extend below the indentations and to interlock with and extend under the rib 12^a of the bottle which is disposed below the

indented portions of the cap. The lower margin of this skirt 10 is contracted or rolled inwardly, as at 14, which is effected by a suitable machine to form a positive interlock between the cap and the bottle and prevent the cap from being removed until the locking portion of the skirt has been removed. The cap thus far described exemplifies one which is provided with means for positively locking the cap on the bottle until it is removed, as hereinafter set forth, and with supplemental means, such as the indentations, for removably securing the cap on the bottle.

The skirt 10 of the cap is annularly scored on its inner face, as at 15, to make it possible to tear the locking portion 14 from the cap. To facilitate the removal of this portion, a hole 16 intersects the score 15 and a perforated tongue 17 is formed below said perforation. The skirt is also notched slightly, as at 18, so that when an ice-pick or any other tool is inserted in the perforated tongue, the strip of metal below the score 15 may be first easily drawn between the notch 18 and perforation 16. After this has been done, the strip of metal below the score may be readily torn off until all of the holding portion 14 has been removed. Thereafter, the remaining portion of the cap, which includes the skirt portion above the score 15, can be used as a removable closure for the bottle, the indentations 11 permitting it to be removed and replaced on the bottle and held thereon with sufficient firmness for closure purposes during the consumption of the contents of the bottle. This exemplifies a cap which serves as a seal or as a lock to prevent the removal of the cap until the locking portion has been torn from the cap, because it is impossible to remove the cap until this locking portion of the cap has been removed.

In the modified form of the invention shown in Fig. 5, the skirt is provided with a screw or helical thread 20, which is adapted to be turned onto and off a corresponding thread 21 on the bottle 9, in lieu of using the indented portions 11, as exemplified in Figs. 1 to 4. In all other respects, the cap is similar to that already described.

The invention exemplifies a bottle-cap, which is adapted to serve as a closure for a bottle, which is provided with means to lock or seal the cap on the bottle and with means

for removably securing the cap thereon, and in which the sealing or locking means is removable to make it possible to use the cap as a temporary closure after the locking portion has been removed. This makes it impossible for the contents to be tampered with without removing the sealing or locking portion, so that the ultimate purchaser can see whether or not the closure has been tampered with before he purchases the bottle with its contents.

The invention is simple in construction, and makes it possible to produce these caps at a comparatively low cost. The cap is formed of a single piece of metal. The removal of the sealing or locking strip at the proper point is facilitated by the formation described.

The invention is not to be understood as restricted to the details set forth, since these may be modified within the scope of the appended claims, without departing from the spirit and scope of the invention.

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

1. A one-piece bottle-cap of the character described comprising an integral top and skirt, the skirt being continuous circumferentially and provided at its lower end with an integral inturned flange to interlock with an annular projecting portion of the bottle, means on the skirt between the top and the flange to interfit with the bottle to removably clamp the cap thereon when the flange is removed, and means whereby the entire lower end of the cap with the flange may be torn

off to render the remainder of the cap removable.

2. A one-piece bottle cap of the character described comprising an integral top and skirt, the skirt being continuous and provided at its lower end with an integral inturned flange to interlock with an annular projecting portion of the bottle, means on the skirt between the top and the flange to interfit with the bottle to removably clamp the cap thereon when the flange is removed, the skirt having an annular score between the interfit and the flange and extending substantially around the entire skirt, and means whereby the cap may be torn across the flange to the score and the flange torn off to render the remainder of the cap removable.

3. A one-piece bottle cap of the character described comprising an integral top and skirt, the skirt being provided at its lower end with an integral inturned flange to interlock with an annular projecting portion of the bottle, means on the skirt between the top and the flange to interfit with the bottle to removably clamp the cap thereon when the flange is removed, the skirt having an annular score between the interfit and the flange and a hole intersecting the score, and a tab below the flange whereby the skirt may be torn across the flange to the hole and then torn off at the score to render the remainder of the cap removable.

Signed at Evansville, Indiana, this 2nd day of June, 1924.

AUGUST CHAPIN SPAHN.