

F. J. BUSSMANN.
BOTTLE SEAL.
APPLICATION FILED MAR. 23, 1916.

1,199,873.

Patented Oct. 3, 1916

Fig. 1.

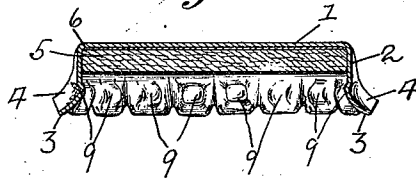


Fig. 2.

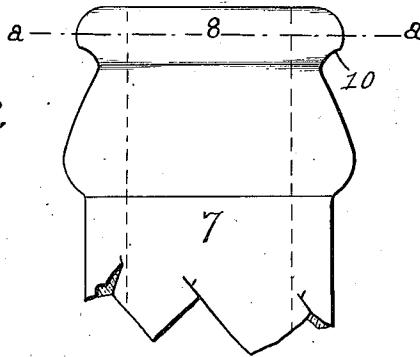
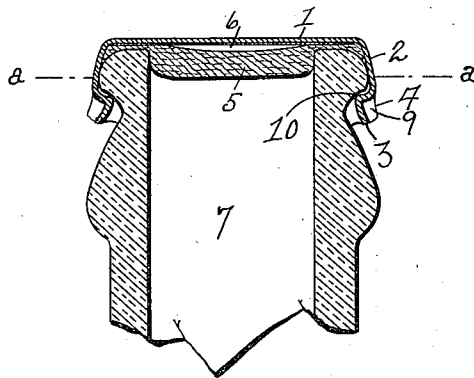


Fig. 3.



Attest:
Comstock
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UNITED STATES PATENT OFFICE.

FRANK J. BUSSMANN, OF NEW YORK, N. Y., ASSIGNOR TO THE INTERSTATE BOTTLE STOPPER CO., INC., OF BROOKLYN, NEW YORK, A CORPORATION OF NEW YORK.

BOTTLE-SEAL.

1,199,873.

Specification of Letters Patent.

Patented Oct. 3, 1916.

Application filed March 23, 1916. Serial No. 86,104.

To all whom it may concern:

Be it known that I, FRANK J. BUSSMANN, a citizen of the United States, residing in the borough of Brooklyn, New York city, in the county of Kings and State of New York, have invented certain new and useful Improvements in Bottle-Seals, of which the following is a specification.

My invention relates to improvements in crown caps for sealing bottles and my objects are the production of a cap which will more securely seal a bottle with a standard sized lip, effectually seal bottles whose lips are abnormal with respect to either size or shape and which will permit the use of thinner tin plate than has hitherto been customary in making metal shells for bottle caps.

In the drawing Figure 1 is a sectional view of a complete cap; Fig. 2 a view of a standard bottle lip and Fig. 3 a view of a crown on a bottle.

My crown consists of the usual metal shell 1 provided with the dependent flange or skirt 2 which has the inner corrugations 3 and the outer corrugations 4 at its lower part. The sealing gasket 5 is ordinarily held in place by a collet 6 charged with an adhesive medium.

The bottle 7 has a lip 8 adapted to engage the skirt of the crown cap and when the cap is brought into sealing relation with the lip the inner corrugations 3 are forced under the greatest diameter of the lip and maintain the cap in sealing position. Hitherto the inner corrugations of the skirts have been formed straight in the metal shells and if the lip on the bottle has been abnormal either as to shape or size the lock has not been secure and the cap has been blown off in pasteurizing due to its inability to hold under the internal pressure due to the expansion of the contents of the bottle.

My invention so shapes the inner corrugations of the skirt that when the cap is applied to a bottle it will securely hold whether the bottle lip be standard or abnormal in size or shape. I am also enabled to use thinner tin in making shells and still obtain the same locking power as has hitherto been obtained by the use of the thicker tin.

The construction which enables me to obtain these results are inward projections 9

formed on the inner faces of the inner corrugations 3 at a sufficient distance below the top of the shell that when the cap is being put on the bottle the top or sealing pressure will bring the inward projections 9 slightly below the greatest diameter of the bottle lip. When the side or bending pressure is applied to the corrugations forcing them inwardly the inward projections will strike and slide downwardly along the retreating face 10 of the lip (below the line *a-a*) and draw the metal shell more forcibly into more intimate contact with the bottle lip than has heretofore been possible, without breaking the bottle and this even to the extent of drawing into and perfectly sealing chipped bottles. When in locked position these inward projections 9 act as claws and grip the under part of the bottle lip more firmly and solidly than any straight skirted cap possibly can thereby permitting the use of thin tin in crown shell making. It is obvious that it is not necessary to provide each of the inner corrugations with an inward projection so long as a sufficient number are present to perform the added locking function. The cap is removed from the bottles by the aid of any of the ordinary openers and required little or no more exertion to do this than when the ordinary cap is removed.

I claim:—

1. A bottle seal comprising a shell, a corrugated skirt depending therefrom and inward projections on the inner faces of inner corrugations.

2. A bottle seal comprising a shell, a corrugated skirt depending therefrom and inward projections on the inner faces of the inner corrugations at a sufficient distance below the top to engage the lip of a bottle below its largest diameter.

3. A bottle seal comprising a shell, a corrugated skirt depending therefrom, inward projections on the inner faces of inner corrugations and a sealing gasket within the shell.

In testimony whereof, I have affixed my signature in the presence of two witnesses.

FRANK J. BUSSMANN.

Witnesses:

ORMCAN B. HILL,
M. LEON GOLDMAN.