L. BARTLETT.

BOTTLE CAP OR SEAL.

APPLICATION FILED JULY 18, 1913.

1,135,094. Patented Apr. 13, 1915.

Fig. 1

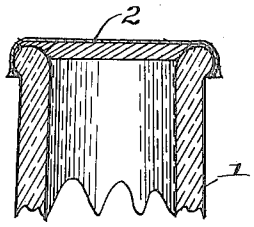


Fig. 3

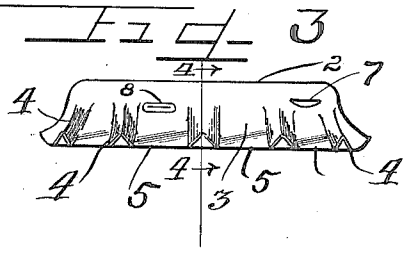


Fig. 2

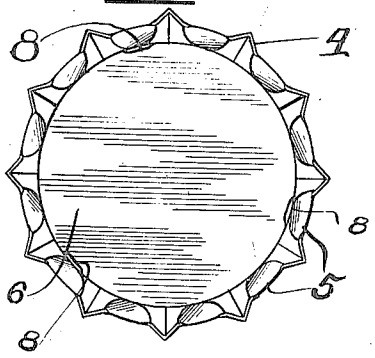


Fig. 4

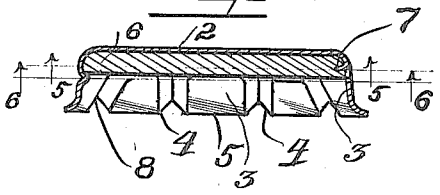


Fig. 5

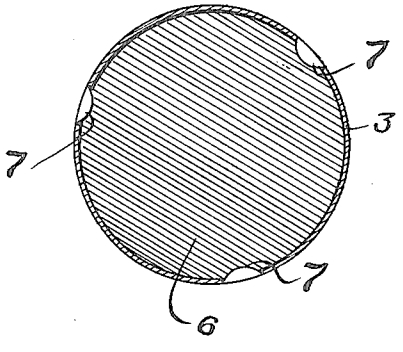
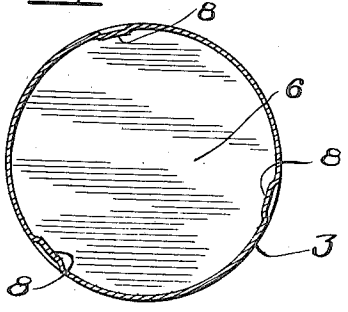


Fig. 6



Witnesses

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UNITED STATES PATENT OFFICE.

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BOTTLE CAP OR SEAL.

1,135,094. Specification of Letters Patent. Patented Apr. 13, 1915.

Application filed July 18, 1913. Serial No. 779,660.

To all whom it may concern:

Be it known that I, LEONARD BARTLETT, a citizen of the United States, and a resident of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Bottle Caps or Seals; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the numbers of reference marked thereon, which form a part of this specification.

Heretofore in the metallic caps used for sealing bottles the caps have been provided with a cork packing disk or washer which acts as a gasket to seal the connection between the bottle and the cap. It has proved to be more or less of a problem to retain the cork disk or packing within the cap previous to the application thereof to a bottle. Heretofore sealing caps for bottles have only been capable of being engaged upon a bottle of certain size, and in the event of irregularities occurring in the contour of the bottle mouth, the caps fail to positively seal the same.

This invention relates to an improved means for positively securing the cork disk in the cap in such a manner as to prevent removal of the cork without mutilating the same.

This invention also relates to means for sealing bottle mouths of different size within certain ranges, and also adapted to engage around the entire surface of the bottle mouth, even though the contour thereof be irregular, thus efficiently sealing the same.

It is an object of this invention to provide a device equipped with integral positively engaging retaining means for securing the cork or other packing material therein independent of adhesive.

It is also an object of this invention to provide a bottle cap struck inwardly at a plurality of points in the periphery thereof to engage within the body of the cork or packing between the inner and outer surfaces thereof.

It is also an object of this invention to provide a bottle cap adapted to be secured on bottles having sealing beads of different size, and to effectually compensate for the irregularities in the shape thereof to efficiently seal the same.

It is furthermore an object of this invention to provide a fluted bottle cap seal, wherein the gripping flanges between the fluting thereof is of varying width adapting certain portions of, or all of, said gripping flanges between said flutings, to engage the bottle to retain the cap thereon.

It is finally an object of this invention to provide an improved device of cheap, simple, and durable construction, and capable of being attached to a bottle by means of the usual or ordinary sealing means.

The invention (in a preferred form) consists in the matters hereinafter more fully described and pointed out in the appended claims.

In the drawings: Figure 1 is a central section showing a bottle sealed with a device embodying my invention. Fig. 2 is a bottom plan view thereof showing the same previous to attachment on a bottle. Fig. 3 is a side elevation thereof. Fig. 4 is a vertical section taken diametrically through the cap and illustrating methods of securing the cork within the cap. Fig. 5 is a section on line 5—5 of Fig. 4. Fig. 6 is a section on line 6—6 of Fig. 4.

As shown in the drawings: The reference numeral 1, indicates a bottle to which the sealing cap has been applied, said sealing cap comprising the top 2, and downwardly extending substantially vertical wall or flange 3. The wall 3 is fluted at the points 4, and intermediate said fluting is flanged outwardly as shown at 5, said flange being of varying width, inasmuch as the line of fold in the wall 3, representing the inner edge of said flange 5, extends diagonally between the fluted portions from near the lower end of one, to near the upper end of another adjacent thereto. Thus it is seen that the flange 5 is inclined and is joined at its ends to the adjacent fluting 4, but is connected to the vertical wall 3, of the cap along a diagonal fold, thereby affording a flange of varying width.

The packing washer or cork insert is designated by the reference numeral 6, and as shown in Fig. 4, is secured within the cap by different means, although one is sufficient for the purpose. One of said means for securing the cork insert in the cap consists in the integral struck tongue of metal 7, which is struck from the wall 3, leaving an aperture therein, and is embedded in the cork insert between the inner and outer faces

thereof. The other retaining means for the cork insert consists of the portions of metal 8, which are indented from the outer walls of said cap, inwardly, at a point adapting said indentures to engage over the outer surface of the cork insert or packing.

The operation is as follows: When it is desired to secure the cork disk within the cap the cork is inserted therein and either one or both of the methods described, and consisting respectively in the inwardly struck portions of metal 7 and 8, may be used. The feature of the device which adapts it to compensate for inequalities or irregularities in the bottle bead, resides in the peculiarly angled flange 5, of varying width. As is well known, the purpose of the fluting in the periphery of the cap is merely to provide a contact point or engaging means for the sealing mechanism, which, as it seals the cap upon the bottle, forces said fluting from the laterally angled position shown in Fig. 3, downwardly, to a substantially vertical position, as shown in Fig. 1, and the portion 5 of the flange intermediate said fluting, being integrally connected therewith, is forced inwardly beneath the bottle bead, this serving to retain the cap in place. Of course, the line of inward bending of said engaging flange 5, as it is forced beneath the bottle bead, is along the line of connection of said flange 5 with the side wall 3, of the bottle cap. In ordinary constructions such line of connection is parallel to the lower edge of the cap, and consequently the distance between the top of the cap and the inturned retaining flange at the bottom thereof, is a constant quantity, and hence irregularities in the neck or locking rib of the bottle will prevent the cap from being properly secured at such points. On the other hand, in this invention the distance between the top of the bottle cap and the inwardly folded retaining flange, is a varying quantity afforded by the diagonal line of fold of the flange and the side walls of the cap. Thus it is readily seen that the bottle bead will be contacted by said inner folded and inclined flange 5, at a point on or within the diagonal line of fold thereof, dependent upon the particular depth and shape of the bottle bead at such points, and a relatively wide range of adaptability is thereby afforded.

The number of corrugations or flutings provided on the cap is a quantity dependent upon the degree or efficiency of retainment desired, and by using fewer corrugations, the cap may be made from a smaller blank, thus economizing in metal and at the same time affording a longer retaining flange between the corrugations, and long retaining means for holding the packing disk.

I am aware that details of construction, as well as the arrangement of such, are open to wide variation, without departing from the principles of this invention, and I therefore do not purpose limiting the patent granted otherwise than necessitated by the prior art.

I claim as my invention:

1. A bottle seal, embodying a top, and a wall extending annularly from the edge of said top and formed integral therewith, said wall being fluted at intervals, and said fluted portions being united by flanges whose line of connection with said wall is at an angle to the lower edges of said flanges.

2. A bottle seal fluted outwardly around the periphery thereof, and retaining flanges adapted to be engaged beneath the bead of a bottle, the line of fold of said retaining flanges extending from near the lower end of one of the flutings to near the upper end of an adjacent one, affording a varied distance between the retaining flanges and the top of the bottle seal.

In testimony whereof I have hereunto subscribed my name in the presence of two subscribing witnesses.

LEONARD BARTLETT.

Witnesses:

LAWRENCE REIBSTEIN,

LEON M. REIBSTEIN.