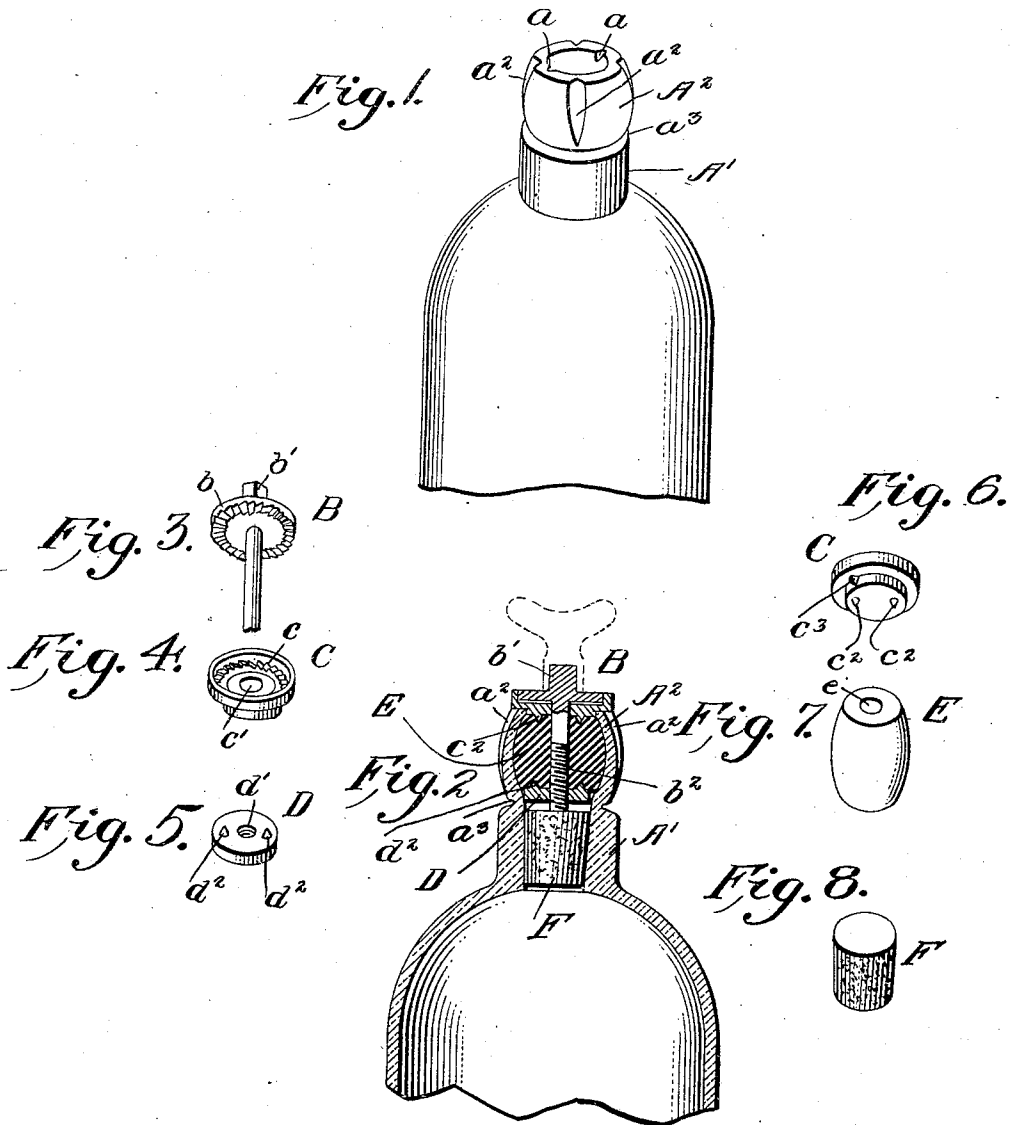


W. P. BEBLER.
BOTTLE.

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955,309.

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Witnesses

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BOTTLE.

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To all whom it may concern:

Be it known that I, WILLIAM P. BEBLER, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Bottle, of which the following is a full, clear, and exact description.

My invention relates to bottles, and has for its object to provide a bottle with a simple and compact closure which when once applied to the neck of the bottle cannot be removed without destroying the specially designed upper portion or head of the bottle, thus precluding its use again as an original package.

With these and other objects in view, the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size and minor details may be made, within the scope of the claims, without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:—Figure 1 is a perspective view of the bottle designed to receive the closure forming the subject-matter of my invention and showing the lower unimportant part of the bottle broken away. Fig. 2 is a vertical section of the same with the stopper secured in place. Fig. 3 is a detached perspective view of the bolt for tightening the stopper and the upper rigid member thereof. Fig. 4 is a detached perspective view of the lower rigid member of the stopper as viewed from above. Fig. 5 is a perspective view of a nut threaded to the bolt and provided with spurs to prevent its turning. Fig. 6 is a perspective view of the lower rigid member of Fig. 4, as viewed from below, showing spurs and projections to guard against its turning. Fig. 7 is a perspective view of a rubber cork employed in connection with the parts referred to above to close the mouth of the bottle, and Fig. 8 is a perspective view of a cork employed to close the opening in the neck of the bottle before and after the main closure has been removed.

Like characters of reference indicate corresponding parts in each of the several figures of the drawings.

The head A^2 is formed so that it may, by

pressure from within, be broken away from the neck A^1 , and to this end it is provided with a series of vertically-disposed grooves a^2 , a^2 , etc., designed to weaken the head at a plurality of points so as to facilitate the breaking up of the head into a number of sections.

In order that the parting of the head may be confined to the head alone and may be broken without doing serious damage to the neck or to the body of the bottle, I resort to the employment of a deep and well defined groove a^3 , which I arrange between the head and neck of the bottle, as illustrated in Fig. 2, so as to weaken the neck at this point. The head A^2 is also notched at the top, as shown at a , a , which as will be later on shown serves to prevent a portion of the stopper from turning while pressure is being applied thereto. The head A^2 has also a curved wall better shown in Fig. 2 so that a somewhat globular open center is formed to prevent the withdrawal of the expansible member after the same has been expanded.

The closure or stopper of the bottle includes a bolt B, having a non-circular head b^1 , a flange b provided with a series of ratchet teeth and a lower threaded portion b^2 , to engage a nut.

A flanged metal plate C, is laid above the head A^2 and projects into the opening thereof being provided with lugs c^3 , c^3 , to engage the notches a , a , so that the metal plate will be secured against turning. The metal plate C, is also provided with ratchet teeth c , which are adapted to engage corresponding teeth of the flange b , and with an opening c^1 , through which passes the lower part b^2 of the bolt B. The plate C has also depending spurs c^2 , c^2 , which are pressed into the expansible member E, also to prevent this member from turning when the stopper is being adjusted.

The expansible member E is preferably formed of soft rubber and has a central opening e to receive the bolt B. Below the expansible member E is a nut D, having a threaded opening d^1 to receive the threaded portion of the bolt B, and provided also with spurs d^2 , d^2 , which bite into the expansible member as the stopper is being adjusted and hold the nut against turning.

Prior to inserting the stopper a plain cork F is driven into the neck of the bottle, as shown in Fig. 2, and serves to prevent bits

of broken glass, etc., from entering the bottle while the head A^2 is being broken away.

In applying the stopper, the cork F is first pressed into position in the neck A^1 , after which the stopper is applied in an extended position to enable the expansible member E to pass through the narrow entrance of the head. The bolt B is then turned by a suitable key or wrench causing the member E to be compressed between the metal plate C, and the nut D, thus expanding the member laterally and causing it to bind against the inner wall of the head and to form a tight closure, the ratchet teeth of the plate C and flange b serving to prevent the bolt from being turned backward after the member has been properly adjusted. A continued tightening of the bolt B, will so increase the internal pressure upon the head A^2 as to cause the same to break, thereby releasing the stopper and permitting the cork F to be withdrawn in the usual manner and likewise the contents of the bottle.

What is claimed is:—

1. A bottle, the neck of which is provided with a transverse cleavage line at which the neck is adapted to be broken and a longitudinally-compressible transversely-expansible means for breaking the neck above the line of cleavage.

2. A bottle, the neck of which is provided with a transverse cleavage line and approximately longitudinal cleavage lines at which the neck of the bottle is adapted to be broken and a longitudinally-compressible transversely-expansible means for breaking said neck at the lines of cleavage.

3. A bottle, the neck of which is provided with a transverse cleavage line, a longitudinally-compressible transversely-expansible means, and means for exerting pressure to thereby produce fracture of the bottle at the line of cleavage.

4. A bottle, the neck of which is provided with an intermediate annular weakened portion, a closure within the neck between the weakened portion and the body of the bottle, cleavage lines arranged above the weakened portion and at which the neck is adapted to be broken, and means within the neck beyond such weakened portion for exerting internal pressure to break the neck at the weakened portion.

5. A closure including a longitudinally-compressible, transversely-expansible member provided with a plate having ratchet teeth, a bolt extending through said plate and through said member and having a flange provided with corresponding ratchet teeth, a nut arranged on the lower end of the bolt, and said closure provided with means whereby the screw may be turned.

6. A bottle, the neck of which is provided with a transverse cleavage line at which the neck is adapted to be broken, and said neck

having internal notches, a longitudinally-compressible, transversely-expansible member in said neck above the cleavage line, lugs on said member located in said notches preventing rotary movement of the member, and a screw projecting through the member and adapted to compress the same to break the neck above the cleavage line.

7. A bottle, the neck of which is provided with a transverse cleavage line at which the neck is adapted to be broken, and said neck having internal notches, a longitudinally-compressible, transversely-expansible member in said neck above the cleavage line, lugs on said member located in said notches preventing rotary movement of the member, a screw projecting through the member and adapted to compress the same to break the neck above the cleavage line, and said neck having longitudinal cleavage lines in its outer face, whereby the neck is weakened and adapted to be broken in sections by the expansible device.

8. A bottle, the neck of which is provided with an intermediate annular weakened portion, and made of general globular form above said weakened portion, a longitudinally-compressible, transversely-expansible member of general bulbous form in said globular portion of the neck, and adapted when expanded to break the neck above said weakened portion.

9. A bottle, the neck of which is provided with an intermediate annular weakened portion, and made of general globular form above said weakened portion, a longitudinally-compressible, transversely-expansible member of general bulbous form in said globular portion of the neck, and adapted when expanded to break the neck above said weakened portion, and said neck having longitudinal grooves above the weakened portion, adapted to be broken by the expansible device.

10. A bottle, the neck of which is provided with an intermediate annular weakened portion, and made of general globular form above said weakened portion, a longitudinally-compressible, transversely-expansible member of general bulbous form in said globular portion of the neck, and adapted when expanded to break the neck above said weakened portion, and said neck having longitudinal grooves above the weakened portion, adapted to be broken by the expansible device, and said expansible device constructed to engage the interior of the bottle neck, and prevent rotary movement of the expansible device.

In testimony whereof, I have hereunto set my hand.

WILLIAM P. BEBLER.

Witnesses:

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