(No Model.)

C. R. GIBSON.

BOTTLE AND STOPPER THEREFOR.

No. 587,955. Patented Aug. 10, 1897.

Fig 1

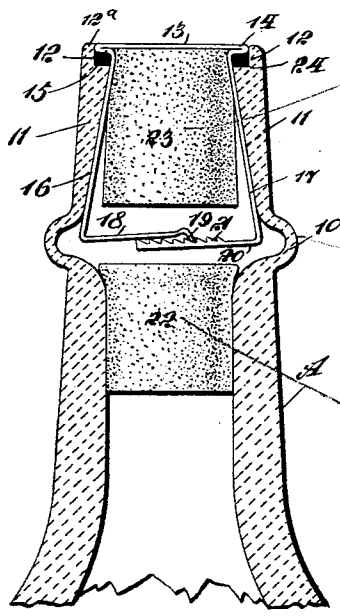
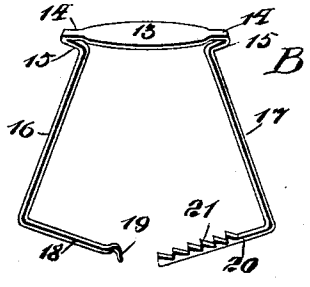


Fig 2



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BOTTLE AND STOPPER THEREFOR.

SPECIFICATION forming part of Letters Patent No. 587,955, dated August 10, 1897.

Application filed December 7, 1896. Serial No. 614,752. (No model.)

To all whom it may concern:

Be it known that I, CHARLES R. GIBSON, of Woodsville, in the county of Grafton and State of New Hampshire, have invented a new and useful Improvement in Bottles and Stoppers Therefor, of which the following is a full, clear, and exact description.

The object of my invention is to construct a bottle and a stopper for the same whereby after the bottle has once received its contents and the stopper has been placed in position in the bottle access to the contents of the bottle cannot be gained until a portion of the neck of said bottle has been broken off, thereby destroying that portion to such an extent that the bottle cannot be again presented as an original package.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both figures.

Figure 1 is a vertical section through the neck of a bottle, illustrating the stopper in side elevation and as applied to the neck of said bottle; and Fig. 2 is a perspective view of the locking-yoke which is used in connection with the stopper.

The neck of the bottle A is provided near its mouth with an outwardly-bowed section 10, so shaped as to form an exterior rib around the neck of the bottle, and this rib-section of the neck is made so frail or thin that it may be readily crushed or broken when brought in contact with any solid object. The section of the neck which is above the frangible rib 10 has its inner face beveled in an upwardly direction, whereby the upper section of the neck is much thinner adjacent to the rib 10 than adjacent to the mouth of the bottle, the inclined walls of the upper section of the neck being designated by the reference-numeral 11.

At the mouth or top of the neck a recess 12 is made, which recess extends through the inner wall of the neck at the mouth and forms a vertical flange 12^a at the outer portion of said mouth, as shown in Fig. 1. A locking-yoke B is used in connection with the mouth of the bottle, and this locking-yoke is made from a spring material, the said material being preferably in strip form, and the material is bent upon itself to form an upper cap 13, from opposite sides of which arms 14 are horizontally projected, and the material is then bent upon itself so as to produce inwardly-returned arms 15 and side members 16 and 17, which are inclined downwardly and outwardly in opposite directions, the side member 16 being provided with a foot-section 18, which is carried inward and terminates in a pawl or finger 19. The opposite side member 17 of the locking-yoke is provided likewise with a foot-section 20, projected inwardly, and on the foot-section 20 ratchet-teeth 21 are formed, having a slant or inclination in direction of the inner end of the foot. Both foot-sections 18 and 20, when the locking-yoke is at rest, are inclined downwardly in direction of the center of the yoke, as shown in Fig. 2.

A cork 22 is placed in the neck of the bottle below the frangible rib 10, as illustrated in Fig. 1, and a second cork 23 is fitted in the top of the locking-yoke B, and the said yoke and its contained cork are forced downward into the upper section of the neck of the bottle, the sections of the yoke being then brought at their free ends closely to the opposing side members of the yoke, and as the yoke and the cork are forced inward into the upper section of the bottle-neck the side members 16 and 17 of the yoke expand or said members are forced outward until when the cap 13 is substantially flush with the upper edge of the bottle-mouth the side members of the yoke will be in engagement with the beveled face 11 of the upper section of the bottle-neck, as shown in Fig. 1, and the pawl 19 will have been drawn across the ratchet-teeth 21 to such an extent that the pawl will be in locking engagement with the ratchet-teeth when the side members of the yoke are seated against the side walls of the neck of the bottle, effectually preventing the side members

of the yoke being forced inward and the cork and yoke withdrawn. In the event that force is employed at the top or mouth of the bottle-neck to dislodge the locking-yoke the outer flange 12ª will be fractured or so marred that the attempt to open the bottle will be plainly shown.

When the locking-yoke B has been properly seated in the bottle-neck, it is pressed down upon a rubber gasket 24, placed in the recess 12, as is also shown in Fig. 1.

In order to gain access to the contents of a bottle constructed as above described, the frangible rib 10 will be checked, cracked, or broken by engagement with some solid object, whereupon by striking the upper section of said neck this section will be quickly separated from the main section of the neck at the point where the rib 10 is located. When such a separation occurs, the cork 22 is uncovered and may be readily withdrawn in the usual manner, the bottle then presenting an exceedingly short neck, giving character to the bottle, and the rough surface at the upper portion of the short neck, where the upper section of the original neck was separated from the lower section, will indicate that the shape of the bottle has been changed from its original form.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A bottle-stopper consisting of a yoke shaped to form an upper cap, and side members projected downward from the cap, each side member terminating in a foot, one foot carrying a pawl and the opposing foot ratchet-teeth for engagement with the pawl, the said yoke being adapted to receive a cork, as and for the purpose specified.

2. A bottle-stopper consisting of a yoke made of a spring material, comprising an upper cap, arms projected from opposite sides of the cap, the said arms being returned inwardly upon themselves beneath the cap, side members extending downward from the return portion of the arms, each side member being provided with an inwardly-extending foot-section, a pawl carried by the foot-section of one side member, and ratchet-teeth having an inward inclination, carried by the foot-section of the opposing side member of the yoke, and a cork held in engagement with the under portion of the cap and with the upper portion of the side members of the yoke, as and for the purpose set forth.

3. A locking device for bottle-corks, consisting of a yoke, the said yoke comprising a cap, arms extended from opposite edges of the cap, being returned inwardly upon themselves, side members extended downward from the return-section of each arm, an inwardly-extending foot located at the lower end of each side member, a pawl carried by one of the said feet, and ratchet-teeth located upon the opposing foot, the said ratchet-teeth being given an inward and an upward inclination, as and for the purpose set forth.

4. The combination, with the neck of a bottle provided with a frangible section, the neck of the bottle above the frangible section being upwardly and inwardly inclined and provided with an upper and an inner recess, of a stopper consisting of a locking-yoke of spring material, comprising a cap, arms projected from opposite ends of the cap, and returned inwardly upon themselves beneath the cap, side members projected one from the return portion of each arm, foot-sections inwardly carried from the lower terminal of each side member, one foot-section being provided with a pawl and the other with ratchet-teeth for the reception of the pawl, a cork secured in the said locking-yoke adjacent to its head, and a second cork adapted to be placed in the neck of the said bottle, below the frangible section thereof, substantially as shown and described.

5. A securing device for bottle-stoppers, the securing device having a resilient band the free portions of which are capable of expanding within the neck of the bottle and one of said free portions having ratchet-teeth while the second of said free portions has a pawl or dog capable of engaging with the ratchet-teeth to prevent the contraction of the securing device within the neck, substantially as described.

6. A securing device for bottles, the bore of the neck of which tapers upwardly and the end of the neck of which is provided with two oppositely-located recesses, the securing device consisting in a circular plate with oppositely-located side members joined to the plate by arms capable of respectively fitting within the recesses in the neck, the side members being capable of expanding within the neck of the bottle and one side member having a series of ratchet-teeth capable of engagement with a pawl on the second side member whereby to hold the side members against contraction within the neck of the bottle, substantially as described.

7. A securing device for bottle-stoppers, the securing device consisting in a section of resilient material the ends of which have spring tendency away from each other and are capable of automatically and adjustably locking with each other so as to prevent movement of the ends toward each other whereby said ends may expand within the neck of the bottle and lock with each other when the ends engage opposite walls of the neck to prevent the inward movement of the ends, substantially as described.

8. A securing device for bottle-stoppers, the securing device consisting in a section of resilient material the free ends of which have spring tendency to move away from each other and said free ends being provided with

means by which they may be automatically and adjustably connected to prevent movement of the said ends toward each other whereby the free ends of the said section may expand against the inner walls of the neck of the bottle and the connecting means serving to prevent the said end portions from moving inward, out of such expanded position, substantially as described.

CHARLES R. GIBSON.

Witnesses:
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