H. P. IPSEN.

BOTTLE AND CAP THEREFOR.

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1,124,450.

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Fig. 1.

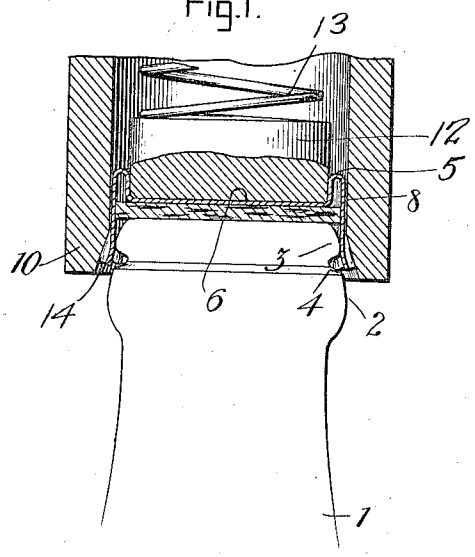


Fig. 2.

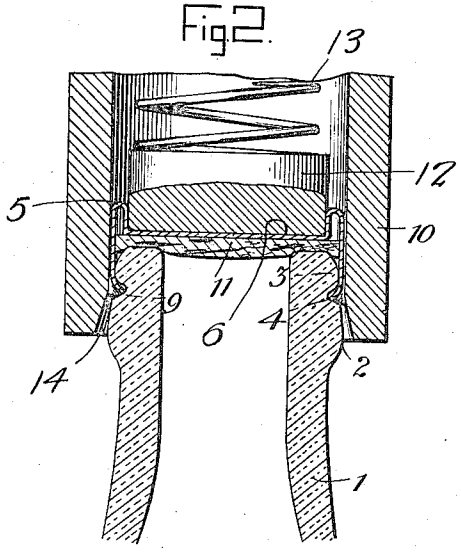


Fig. 3.

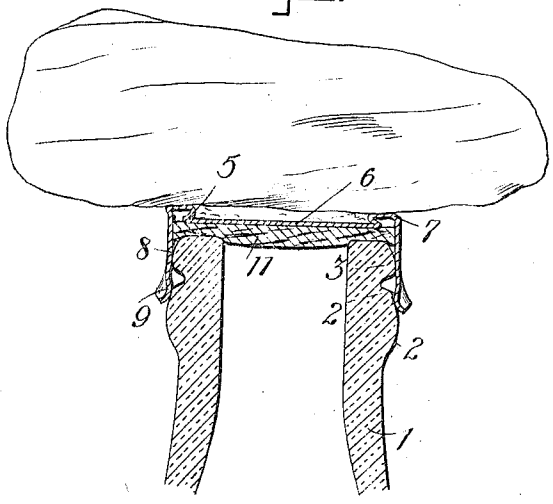
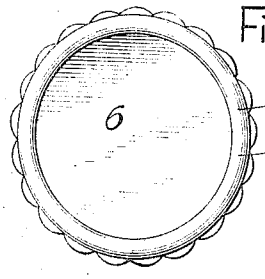


Fig. 4.



WITNESSES

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BOTTLE AND CAP THEREFOR.

1,124,450. Specification of Letters Patent. Patented Jan. 12, 1915.

Application filed September 5, 1913. Serial No. 788,234.

To all whom it may concern:

Be it known that I, HENRIK P. IPSEN, a citizen of the United States, and a resident of the city of New York, county of the Bronx, and State of New York, have invented a new and Improved Bottle and Cap Therefor, of which the following is a full, clear, and exact description.

This invention relates to improvements in bottles and caps therefor, and has for an object to provide an improved structure wherein the cap may be easily removed by pressing or striking the same without the use of any particular form of tool.

Another object of the invention is to provide a bottle with a grooved structure designed to receive a crimped cap, the bottle being formed with a raised portion adjacent the grooved portion so that the crimped portion of the cap may be forced over the raised portion and thereby expanded in order to allow the cap to be removed.

In carrying out the object of the invention any particular form of bottle may be provided. The bottle is designed to have a grooved portion near the top and a bead immediately below the grooved portion. A crimped cap is arranged so that part of the crimped portion is fitted into the groove in the bottle when the cap is in place, and in addition a projection is provided on the cap which extends upwardly, whereby when the projection is pressed or struck by an article, the sides of the cap will be forced downwardly over the raised portion or bead and thereby the crimped edge will be spread so that the cap may be easily removed. By thus arranging a raised portion on the cap and arranging a bead on the bottle a structure is presented which will admit of the cap being removed without the use of any tool as the cap may be struck against the ground or wall and caused to expand sufficiently for removal.

In the accompanying drawings—Figure 1 is a sectional view through a cap and a former designed to place the cap in position; Fig. 2 is a view similar to Fig. 1 except that the former has been forced downwardly until the cap is properly crimped on the bottle, the bottle being shown in section; Fig. 3 is a sectional view similar to Fig. 2 except that the same shows the cap depressed and the crimped edge expanded. Fig. 4 is a top plan view of a cap embodying the invention.

Referring to the accompanying drawings by numeral 1 indicates a bottle of any desired kind having beads 2 and 3 formed on the neck with a groove 4 arranged therebetween, bead 2 being preferably larger and slightly greater in diameter than bead 3. Arranged to fit upon the bottle 1 is a cap 5 formed with a top portion 6 having a raised annular ring-shaped downwardly extending member 8. The lower edge of member 8 is formed with crimped portions 9 formed substantially in the usual manner, the raised parts of the crimped portion 9 being engaged by former 10, as shown in Fig. 1, and pressed inwardly so that part of the crimped portions 9 are forced into groove 4, as shown in Fig. 2, when the former is moved downwardly. The former 10 may be of any desired kind, but preferably substantially as shown, and is provided with a block or stopper 12 which fits into the depression in the cap, and which in turn is pressed by a spring 13, which spring may be connected with the former 10 in any desired manner. The former 10 is also provided with a beveled or tapering portion 14, which may be of any desired bevel so as to engage to a greater or less extent as the case may require the various crimped portions 9. When the former has been forced down to the position shown in Fig. 2 the capping operation is complete. This causes the body of the cap to press against the top of the bottle, and also causes the cap to be properly crimped on the bottle. After the cap has been placed in position in this manner the bottle is sealed and is ready to be transported or stored, as desired. When it is desired to open the bottle an article of any kind is pressed or forced against the cap, as shown in Fig. 3, which will cause the upwardly extending portions 7 to be crumpled or pressed downwardly and the member 8 to be moved downwardly in order that the crimped portion 9 may slide over bead 2 and thus be spread. After the crimped portion 9 has been spread the cap may be easily removed. A suitable packing member 11 of any desired material, as for instance, cork, is used for causing a tight joint.

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

1. In a device of the character described, the combination with a bottle formed with a groove and a bead on each side of said

groove, of a cap adapted to be crimped in position so that the crimped portion will fit into said groove, said cap being formed with a collapsible upwardly extending portion formed integral with the crimped portion, whereby when said collapsible portion is collapsed the crimped portion will be forced downwardly over one of said beads, and thereby spread so that the cap may be removed.

2. A bottle cap having on its upper edge a circumferential upstanding flange of double thickness, the outer part being spaced from the inner part so as to allow the inner part to collapse when pressure is brought to bear on the upper edge of said upstanding flange, said outer part extending below the body of said cap, and being formed with crimped portions for engaging the bottle, said outer part being adapted to move downwardly when said inner part is collapsed.

3. A bottle cap having on its upper edge a circumferential upstanding flange formed of walls of double thickness, the outer wall extending below the inner wall, the lower edge of said outer wall being crimped, said inner wall being collapsible, whereby said outer wall is adapted to move downwardly when the inner wall is collapsed.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRIK P. IPSEN.

Witnesses:

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SVENING V. SODENSTROM.