

No. 666,673.

Patented Jan. 29, 1901.

E. HOFFMAN.  
CAP CLOSURE FOR BOTTLES.  
(Application filed Dec. 23, 1899.)

(No Model.)

Fig. 1.

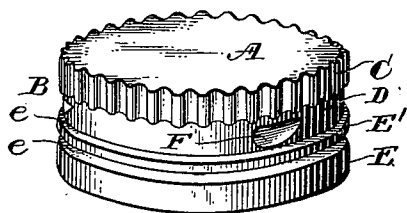


Fig. 2.

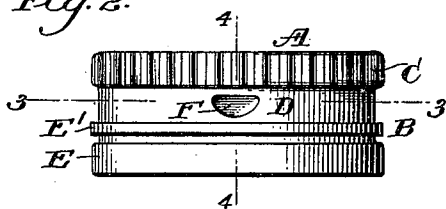


Fig. 3.

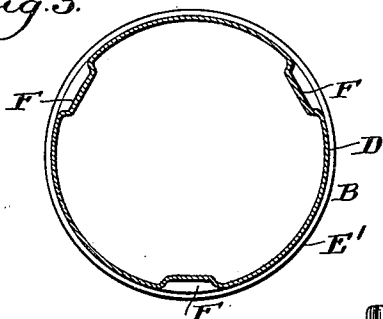


Fig. 4.

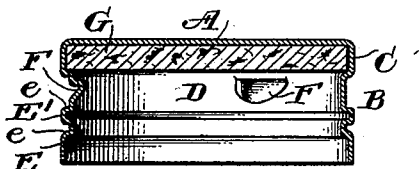


Fig. 5.

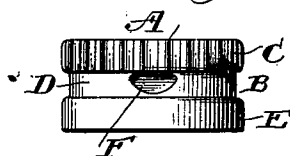
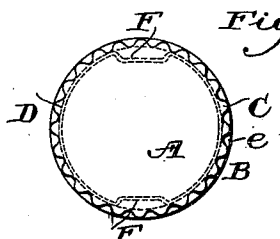


Fig. 6.



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Inventor:

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# UNITED STATES PATENT OFFICE.

EDMUND HOFFMAN, OF BRIDGETON, NEW JERSEY, ASSIGNOR TO HIMSELF,  
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## CAP-CLOSURE FOR BOTTLES.

SPECIFICATION forming part of Letters Patent No. 666,673, dated January 29, 1901.

Application filed December 23, 1899. Serial No. 741,413. (No model.)

*To all whom it may concern:*

Be it known that I, EDMUND HOFFMAN, a citizen of the United States of America, residing in Bridgeton, in the county of Cumberland, in the State of New Jersey, have invented a certain new and useful Improvement in Cap-Closures for Bottles and Similar Receptacles, of which the following is a true and exact description, reference being had to the accompanying drawings, which form a part thereof.

My invention relates to cap-closures for bottles and similar receptacles, and has for its object to provide a closure of this kind which will be strong, slightly, and of convenient construction to enable it to be placed upon and removed from the receptacle with which it is used.

In the prior patent granted to me together with Robert P. Frist, No. 613,371, dated November 1, 1898, we showed and described a closure characterized by the presence on its cylindrical sides of groups of vertical corrugations interspersed with plane facets, in which plane facets the locking-lugs of the cap are formed. In my later application, filed May 23, 1899, Serial No. 717,889, I also showed and described a construction of cap-closure in which the lower edge of the cap was beaded in order to increase its strength and rigidity. My present invention involves the use of my strengthening and stiffening bead at the lower edge of the cap, but is particularly designed to avoid the use of intermittent groups of vertical corrugations and plane facets which distinguishes the Hoffman and Frist cap, while retaining the corrugations to a sufficient extent to afford a good finger-hold and also to sufficiently brace the cap against strains at right angles to the line of the corrugations, the sides of the cap as a whole being made up of an upper zone or ring of vertical corrugations, a lower zone or ring circumferentially beaded or corrugated, and an intermediate, preferably plane and uncorrugated, zone or ring in which the locking-lugs are formed.

Reference is now had to the drawings, in

which my invention is illustrated, and in which—

Figure 1 is a perspective view of a cap embodying my invention. Fig. 2 is a side elevation of the same cap; Fig. 3, a horizontal section on the line 3 3 of Fig. 2; Fig. 4, a vertical section on the line 4 4 of Fig. 2. Fig. 5 is a side elevation of a modified form of cap containing two instead of three locking-lugs, and Fig. 6 is a plan view of the cap shown in Fig. 5.

A in all the drawings indicates the top of the cap, and B the cylindrical sides of the cap.

C is a ring of vertical corrugations extending around the top of the cylindrical sides of the cap.

D is a plane annular ring or zone forming a portion of the sides of the cap below the corrugated ring C, and E is a circumferentially corrugated or beaded zone or ring formed at the lower edge of the cap. In case of large caps, such as the one shown in Figs. 1 to 4, it is advisable to have more than a single beading, such as E, and I have therefore shown an upper beading at E', and it will be noted that in the cases of the beading shown I have formed a substantially right-angled shoulder, as indicated at e, this having the obvious property of bracing and stiffening the lower portion of the cap to a greater extent than if the beading were more rounded.

F F, &c., indicate the locking-lugs formed in the plane circumferential band D of the cap, and G indicates the layer of cork or equivalent material which is held in the top of the cap and which, it will be obvious, is especially well anchored by its disengagement with the corrugations of the ring C.

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

1. A cap-closure for bottles and other receptacles having its upper edge vertically corrugated, its lower edge circumferentially beaded and locking-lugs formed in a plane circumferential band situated between the corrugations and beading.

2. A cap-closure for bottles and other recep-

5      tacles having its upper edge vertically corrugated, its lower edge circumferentially beaded and locking-lugs formed in a plane circumferential band situated between the corrugated and beaded portions and of less diameter than either of said portions.

10      3. A cap-closure for bottles and other receptacles having at its upper edge a circumferential band of roughened surface to afford a good finger-hold, at its lower end a circumferential beading, between said upper and lower edges, a plane circumferential band of less diameter than the edge bands and having locking-lugs formed in said plane band.

15      4. The cap for bottles and the like having a flange provided with a circumferential series of crimps intermediate the ends of the cap, and an uncrimped portion constituting a band

below the crimps to fit a bottle-neck, said band being provided with internal lugs above its lower edge to engage shoulders in said bottle-neck below its main surface. 20

5. The cap for bottles and the like having a flange provided with a circumferential series of crimps intermediate the ends of the cap and an uncrimped portion constituting a band below the crimps to fit a bottle-neck, said band being provided with internal lugs above its lower edge to engage suitable shoulders in said bottle-neck below its main surface, said crimps extending outside a circumferential plane tangential to the exterior of the band. 25 30

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Witnesses:

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