No. 882,547. PATENTED MAR. 17, 1908.

E. D. CHELLIS.

CAP FOR BOTTLES.

APPLICATION FILED JAN. 23, 1907.

Fig. 1.

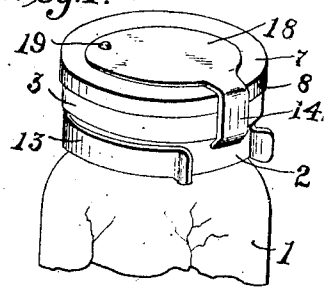


Fig. 2.

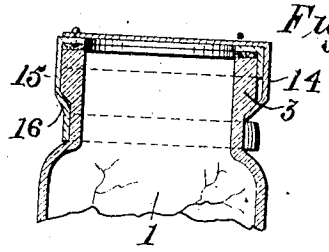


Fig. 3.

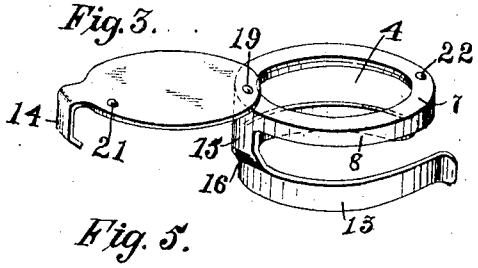


Fig. 4.

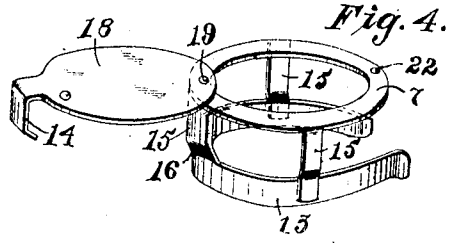


Fig. 5.

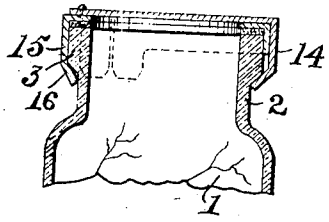


Fig. 8.

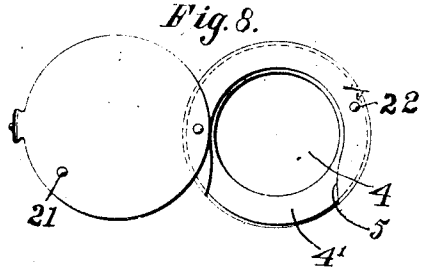


Fig 6.

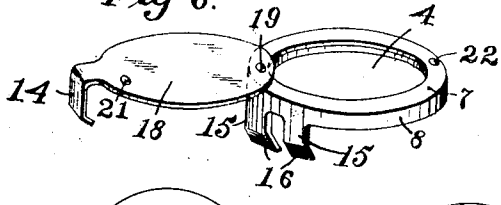
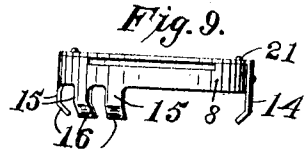


Fig. 9.



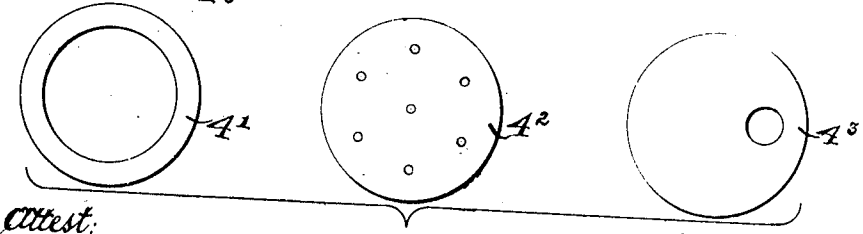


Fig. 7.

Attest:

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James M. Thurston

Inventor,

Eugene D. Chellis.

By Ellis Spear Jr. Atty.

UNITED STATES PATENT OFFICE.

EUGENE D. CHELLIS, OF PORTLAND, MAINE, ASSIGNOR, BY MESNE ASSIGNMENTS, TO NATIONAL METAL SEAL COMPANY, OF PORTLAND, MAINE, A CORPORATION OF MAINE.

CAP FOR BOTTLES.

No. 882,547. Specification of Letters Patent. Patented March 17, 1908.

Application filed January 23, 1907. Serial No. 353,711.

To all whom it may concern:

Be it known that I, EUGENE D. CHELLIS, a citizen of the United States, residing at Portland, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Caps for Bottles, of which the following is a specification.

This invention relates to closures for vessels, and particularly to a closure for vessels which require frequent opening, but the contents of which it is desired to keep securely and tightly sealed.

One end particularly sought has been to secure such a closure, applicable, easily and quickly to bottles of a stock pattern and yet sufficiently secure thereon to afford completeness of seal.

In the drawings which form a part of the specification of the case, Figure 1, is a view of my closure applied to a bottle. Fig. 2, a sectional view of Fig. 1. Fig. 3, a view of the closure removed. Fig. 4, a modification of the losure. Fig. 5, a sectional view of a further modification applied to a bottle. Fig. 6, a view of this form of closure removed. Fig. 7, shows three forms of packing disks which may be used therewith. Fig. 8, is a modified form for use with liquids, etc., and, Fig. 9, is a side view thereof.

1 represents an ordinary stock bottle having a reduced portion 2 below the mouth thereof forming a shoulder 3 about said mouth.

7 is a cap which may be a plain plate, as shown in Fig. 4, or a plate having a flange or rim, as shown in the remaining figures in which 8 indicates the rim or flange portion.

15 are depending clamping arms formed on the cap 7 or on the flange 8 thereof and provided with inwardly turned portions 16 adapted to engage the shoulder 3. There may be one arm 15 as shown in Figs. 1, 2 and 3, or a plurality of such arms, as shown in the remaining figures of the drawings. The arms 15 may furthermore support additional clamping means as 13, herein shown, but not claimed, or said arms may terminate in free ends, as shown in Figs. 5, 6 and 9. The arms 15 may be grouped together at one point on the circumference of the cap, as shown in Fig. 5 or they may be spaced over a semi-circumference of the same.

18 is a cover pivoted at 19 to the cap 7 and having a transverse swing thereon to uncover or cover the cap.

14 is a spring locking lip on the cover 18 adapted to engage the shoulder 3 of the bottle.

The cap 7 may be provided with any sort of openings or perforations and is shown with a central opening 4. In case the closure is to be used for pellets, tablets etc. a packing disk or simple washer may serve, as indicated by 4^1, Fig. 7. 4^2 in this same figure shows the form used with the cap to provide a dusting cap for powder and the like, while 4^3 shows a form particularly adapted to tooth powder and similar material.

Referring to the liquid closure shown in Figs. 8 and 9 it is to be noted that the cap 7 is cut away at 5 from the opening 4 to the edge of the cap exposing the packing disk or washer 4^1 for a space representing the path of that portion of the cover 18 which covers the opening 4. In this way the cover 18 is brought into direct contact with the packing which rises to the edge of the thin metal of the cap under the ordinary pressure of application to the bottle. By this means a complete seal is secured and maintained in spite of continued wear and use.

21 and 22 are stops on the cover and cap respectively.

The operation of the device is as follows: To apply the closure the cover 18 is swung open and the mouth of the vessel slipped under the cap until one side thereof is stopped by the arm or arms 15. The cover is then swung back into place until caught by the stops 21 and 22 which center the depending spring locking lip 14 opposite to the clamping members 15 of the cap. As these members 15 are arranged symmetrically with respect to the pivot 19 of the cover, the said cover will be evenly closed over the opening 4 and the lip 14 will be clamped under the shoulder of the bottle directly opposite to the clamping member of the cap so that the entire structure will be locked symmetrically about the neck of the vessel.

To gain access to the contents of the vessel it is only necessary to swing the cover, wholly or partially, off from over the opening or openings of the cap. If it be desired to remove the entire closure the cap may be sprung off of the vessel by simple lateral pressure (a slight upward push being given

opposite the clamping members to clear the flange if such be used).

Obviously various materials, packings and modifications of parts may be used without departing from the spirit of my invention.

What I therefore claim and desire to secure by Letters Patent, is:—

1. A closure for containing vessels, comprising a cap, a cover pivoted thereto for lateral movement, and a locking lip on said cover adapted to engage, in the closed position thereof, the said containing vessel.

2. A closure for containing vessels, comprising a cap having on one side thereof clamping means, a cover pivoted to said cap for lateral movement, and a locking lip on said cover adapted to engage, in the closed position thereof, the said containing vessel.

3. A closure for containing vessels having a reduced portion below the mouth thereof, comprising a cap, having on one side thereof means for engaging such reduced portion, a cover pivoted to said cap and laterally movable thereon, and a locking lip on said cover to engage said reduced portion when the cover is closed.

4. A closure for containing vessels comprising a cap having a delivery opening therein, a cover mounted on said cap for lateral movement thereon, said opening in the cap being extended to the outside edge in the line of movement of said cover.

5. In combination with a containing vessel having a reduced portion below its mouth, a cover, means for providing for a relative lateral movement between said cover and bottle, and a locking lip on said cover adapted to engage, in its closed position, the said reduced portion.

6. A closure for containing vessels comprising a cap having on one side thereof clamping means, a cover pivoted thereto for lateral movement, a locking lip on said cover adapted to engage, in the closed position thereof, the said containing vessel and a stop for holding said lip in such position opposite to said clamping means.

7. A closure for containing vessels, comprising a cap having a depending rim, clamping means on one side thereof, a cover pivoted to said cap for lateral movement, and a locking lip on said cover adapted to engage, in the closed position thereof, the said containing vessel.

8. A closure for a containing vessel having a shoulder about its mouth comprising a pair of members pivoted together for lateral relative movement, means on one member to engage said shoulder, and means on the other member to prevent the lateral movement of said cap on the mouth of the vessel.

9. A closure for a containing vessel having a shoulder about its mouth comprising a cap, a cover pivoted thereto to laterally swing thereon, means on said cover to engage said shoulder, and means on the cap to prevent the lateral movement thereof or the mouth of the vessel.

10. A closure for containing vessels, comprising a cap, having an opening, a laterally opening cover on said cap to cover said opening, and a locking lip on said cover to engage the vessel.

11. A closure for a containing vessel having a shoulder about its mouth comprising a cap having a delivery opening therein, a laterally movable cover on said cap, a shoulder engaging locking lip on said cover, and a shoulder engaging finger on said cap on the side opposite to the locking lip when in its closed position.

12. A closure for a containing vessel comprising a cap having an opening, a laterally opening cover on said cap to close said opening and a spring locking lip on the cover to engage the vessel.

13. A closure for a containing vessel comprising a cap having a delivery opening, a cover on said cap for lateral movement thereon, means for inter-engaging the cap and cover, and a resilient locking lip on the cover to engage the vessel.

14. A closure for a containing vessel comprising a cap having a delivery opening, a laterally swinging cover pivoted to the cap, an interengaging projection and recess on said cap and cover and a resilient locking lip on said cover adapted to engage the vessel.

15. In a closure for a containing vessel having a shoulder about its mouth, a laterally movable cover and a locking lip having a resilient engaging end adapted to have yielding bearing beneath the shoulder of the containing vessel.

16. A closure for a containing vessel comprising a cap having a delivery opening therein, a laterally swinging cover pivoted to said cap, an interengaging projection and recess on said cap and cover and means for holding said cap and cover in yielding engagement with the vessel at the time of closing.

In testimony whereof, I affix my signature in presence of two witnesses.

EUGENE D. CHELLIS.

Witnesses:

CHAS. A. MAXWELL,

ERNEST O. CHELLIS.