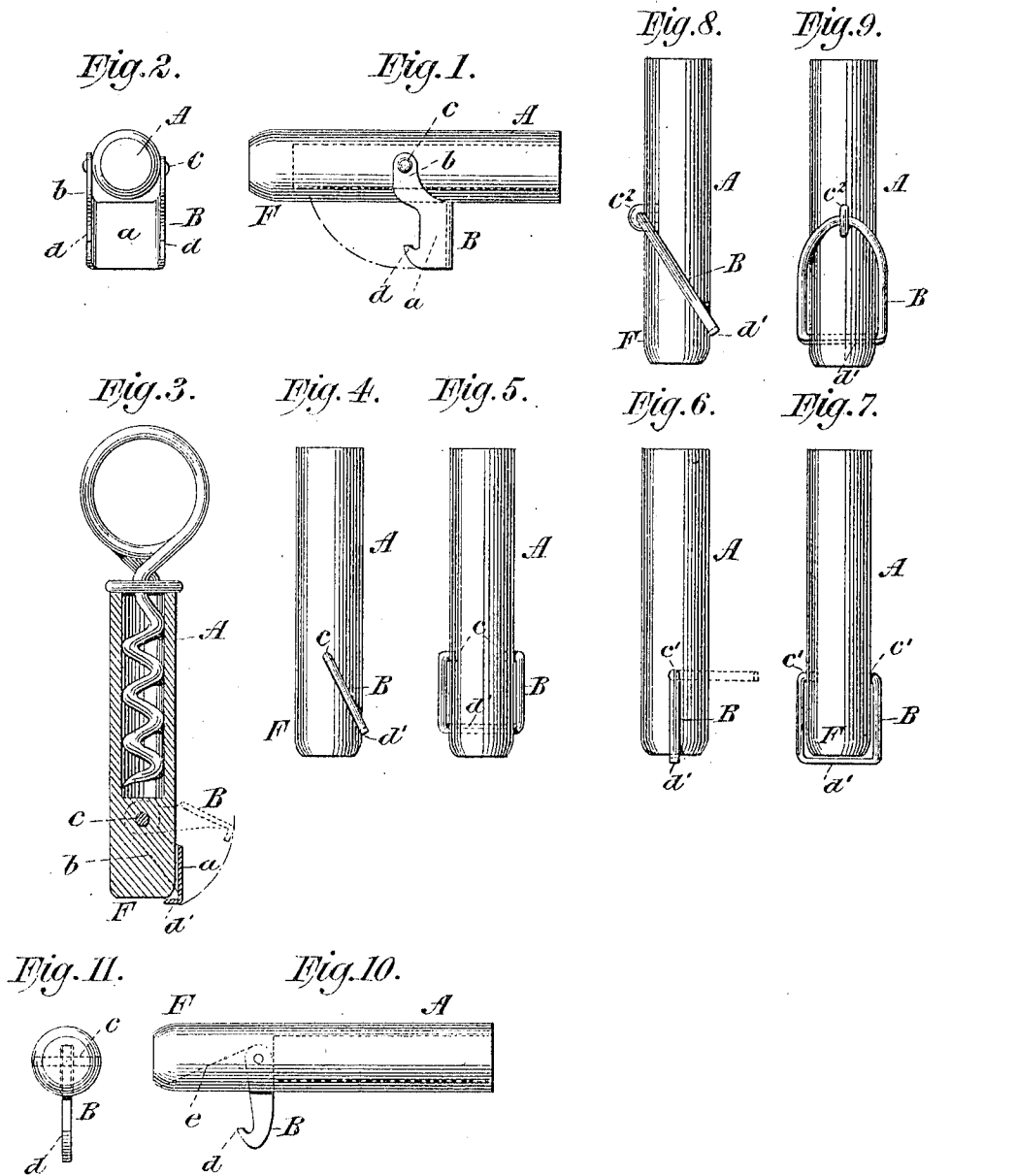


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BOTTLE CAP LIFTER.  
APPLICATION FILED OCT. 16, 1907.

950,509.

Patented Mar. 1, 1910.



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# UNITED STATES PATENT OFFICE.

WILLIAM ROCKWELL CLOUGH, OF ALTON, NEW HAMPSHIRE.

BOTTLE-CAP LIFTER.

950,509.

Specification of Letters Patent.

Patented Mar. 1, 1910.

Application filed October 16, 1907. Serial No. 397,618.

*To all whom it may concern:*

Be it known that I, WILLIAM ROCKWELL CLOUGH, a citizen of the United States of America, residing at Alton, in the county of Belknap and State of New Hampshire, have invented certain new and useful Improvements in or Relating to Bottle-Cap Lifters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of the invention is to provide a suitable individual implement which may be conveniently carried in the pocket and used either for extracting a cork or lifting a cap, the presence of the cork-extracting means serving to increase the utility of the device.

My invention may be embodied in a great variety of different forms and combinations or constructions of the crown cap remover and I will hereinafter describe some suitable and convenient arrangements.

In the annexed drawings in which similar letters refer to corresponding parts in all the figures:— Figures 1 and 2 show in side elevation and end view the application of my invention to the sheath of a pocket corkscrew. Fig. 3 is a sectional elevation showing a slight modification and showing also the corkscrew in the sheath. Figs. 4 and 5 are elevations at right angles to one another of another modification. Figs. 6 and 7 are similar views of another modification. Figs. 8 and 9 are similar views of another modification. Figs. 10 and 11 show another modification in side elevation and end view.

In all the figures A denotes the lever member, B the lifting member connected therewith in movable relation thereto, and F the fulcrum extension of the lever member past the connecting point of the lifting member.

Referring to Figs. 1 and 2, the lever member A is provided by the sheath of a pocket corkscrew, the power end of the lever member being extended by the handle of the corkscrew when the latter is slipped into the sheath as shown in Fig. 3. The movable lifting member B comprises a saddle piece *a* having arms *b* which embrace the sides of sheath A and are pivoted thereto at *c*; in the sides of the saddle piece or lifting member B are formed claws *d* adapted to engage beneath the cap edge. As shown the lifting member B is extended ready for use. The outer end

of the lever member A extends beyond the connecting point of the lifting member B and provides a fulcrum extension F which lies on the cap top while the claws *d* of the lifting member engage at the same time beneath the cap edge, the device is then levered up by applying the power to the other end of the lever member, and the cap is readily removed. The lifting member B when not in use may be folded down onto the sheath or lever member A to snugly saddle the same. When the lifting member B is extended or turned downwardly into its operative position, as in Fig. 1, it stands at about a right angle to the lever member and the cross-bar of said member B by engaging the side of the lever member forms a stop or bearing coöperating therewith to arrest the member B in its operative position.

In the modification Fig. 3, in lieu of claws *d* formed in the sides of the lifting member B, the lower edge of the latter is inturned to provide a blade or bar *d'* to engage beneath the cap edge. This lifting member B is also located near the fulcrum end F of the sheath and the blade *d'* lies just over such end when the lifting member is folded down. This location increases the leverage, and the fulcrum end of the lever member A being brought near the center of the cap top, when the lifting member B engages beneath the cap edge, the levering action causes said fulcrum end to press in or indent the cap top and at the same time to spread outwardly the cap edge, thereby assisting the release of such edge from the retaining flange of the bottle. Also the blade *d'* hanging as it does over the end of the fulcrum extension F greatly facilitates opening the tool, for it may easily be pressed against the under edge of the cap and thus opened in the same act and motion of applying the tool to the cap and by the use of one hand only. The solid end of the sheath is also extended giving a firm support to the pivot or pivots of the lifting member. When the fulcrum end F indents the cap, as above explained, and thus lowers or sinks down, the lifting member does not swing radially from the cap edge and thus weaken its grip, as it might do if it were rigid with the lever, but on the contrary, being pivoted to the lever, is in effect closed inwardly at such time toward the fulcrum, due to the movement of the lever in a direction toward the perpendicular

lar, and enabled to grip the edge of the cap with great firmness.

In the modification Figs. 4 and 5, the movable lifting member B consists of a stirrup piece whereof the side arms are in-  
5 turned at *c* and pivot in recesses in the sheath sides. The bottom bar *d'* of the stirrup piece is flattened and adapted to engage firmly beneath the cap edge while the ful-  
10 crum extension F of the sheath or lever member lies over the cap top. When not in use the stirrup piece or movable lifting member B folds down upon the sheath A as shown.

The modification Figs. 6 and 7 differs from that last described only in that the movable lifting member or stirrup piece B is located nearer the fulcrum end F of the lever member, the bar *d'* folding down over  
20 said fulcrum end F; the advantages of this location of the lifting member have been described in reference to Fig. 3.

In the modification Figs. 8 and 9, the lifting member or stirrup piece B has a loop  
25 top pivotally mounted in an eye or staple *c*<sup>2</sup> fixed to the sheath or lever member A.

In the modification Figs. 10 and 11 the lifting member B consists of a blade or arm having a claw *d* adapted to engage beneath  
30 the cap edge while the fulcrum extension F rests on the cap top, said blade or arm being pivoted within a slot *e* formed in an extension of the solid end of the sheath or lever member A, into which slot it folds when  
35 not in use. The lifting member shown in Fig. 10 when turned into its operative position engages at its back the end wall of the slot *e* and thereby a stop is formed for said member. The lifting member B of this  
40 modification may also be utilized for removing the rubber disks known as "seals" sometimes used for closing bottles, by engaging its claw *d* with the wire loop with which such seals are provided.

I have thus produced a new and useful  
45 article of manufacture.

When my invention is embodied in a pocket cork-screw held in a sheath, I add to the utility of the article without materially  
50 increasing its cost, and the presence of the cork-screw and its sheath elongates the lever member, whereby the article as a whole is rendered efficient, durable and desirable.

What I claim and desire to secure by Let-  
55 ters Patent of the United States is:—

1. A bottle-cap lifter comprising a cylindrical lever member closed at one end and containing an interior chamber extending  
60 through the other end to form a housing for the worm of a cork-screw, and a lifting member secured to said lever member to stand at an angle thereto when in operation, for engaging the edge of a cap while a por-

tion of the lever member is over the cap; substantially as set forth.

2. A bottle-cap lifter comprising a cylindrical lever member closed at one end and containing an interior chamber extending through the other end to form a housing for the worm of a cork-screw, and a lifting  
70 member pivotally secured to said lever member at a point spaced from the end opposite the handle end thereof; substantially as set forth.

3. A bottle-cap lifter comprising a lever  
75 member containing an interior chamber to form a housing for the worm of a cork-screw, and a lifting member pivotally secured thereto at a point spaced from the end opposite the handle end thereof, said lifting  
80 member comprising connected sides which straddle said lever member and being adapted to engage the edge of a cap while the end portion of the lever member is over the top of the cap; substantially as set forth.

4. A bottle-cap lifter comprising a lever  
85 member containing an interior chamber to form a housing for the worm of a cork-screw, and a lifting member pivotally secured thereto at a point spaced from the  
90 end opposite the handle end thereof, said lifting member comprising sides which straddle said lever member and a part integral with and connecting said sides at their outer portion, and said lifting member  
95 being adapted to engage the edge of a cap while the end portion of the lever member is over the top of the cap; substantially as set forth.

5. A bottle-cap lifter comprising a lever  
100 member containing an interior chamber to form a housing for the worm of a cork-screw, and a lifting member pivotally secured thereto and comprising connected sides which straddle said lever member, said  
105 lifting member being adapted to engage the edge of a cap while the lever member is in engagement with the top of the cap; substantially as set forth.

6. A bottle cap lifter comprising a lever  
110 member and a lifting member pivoted thereto at a suitable point spaced from the end opposite the handle end of the lever, said lifting member comprising sides straddling  
115 said lever member and formed at its lower end with a bar to engage the cap when the device is in use and to pass upon the end of the lever when the device is not in use; substantially as set forth.

In testimony whereof I have hereunto set  
120 my hand in the presence of two witnesses.

WILLIAM ROCKWELL CLOUGH.

Witnesses:

H. D. JAMESON.

R. F. WILLIAMS.