

A. W. STEPHENS.
BOTTLE CAP REMOVER.
APPLICATION FILED DEC. 23, 1910

999,901.

Patented Aug. 8, 1911.

Fig. 2.

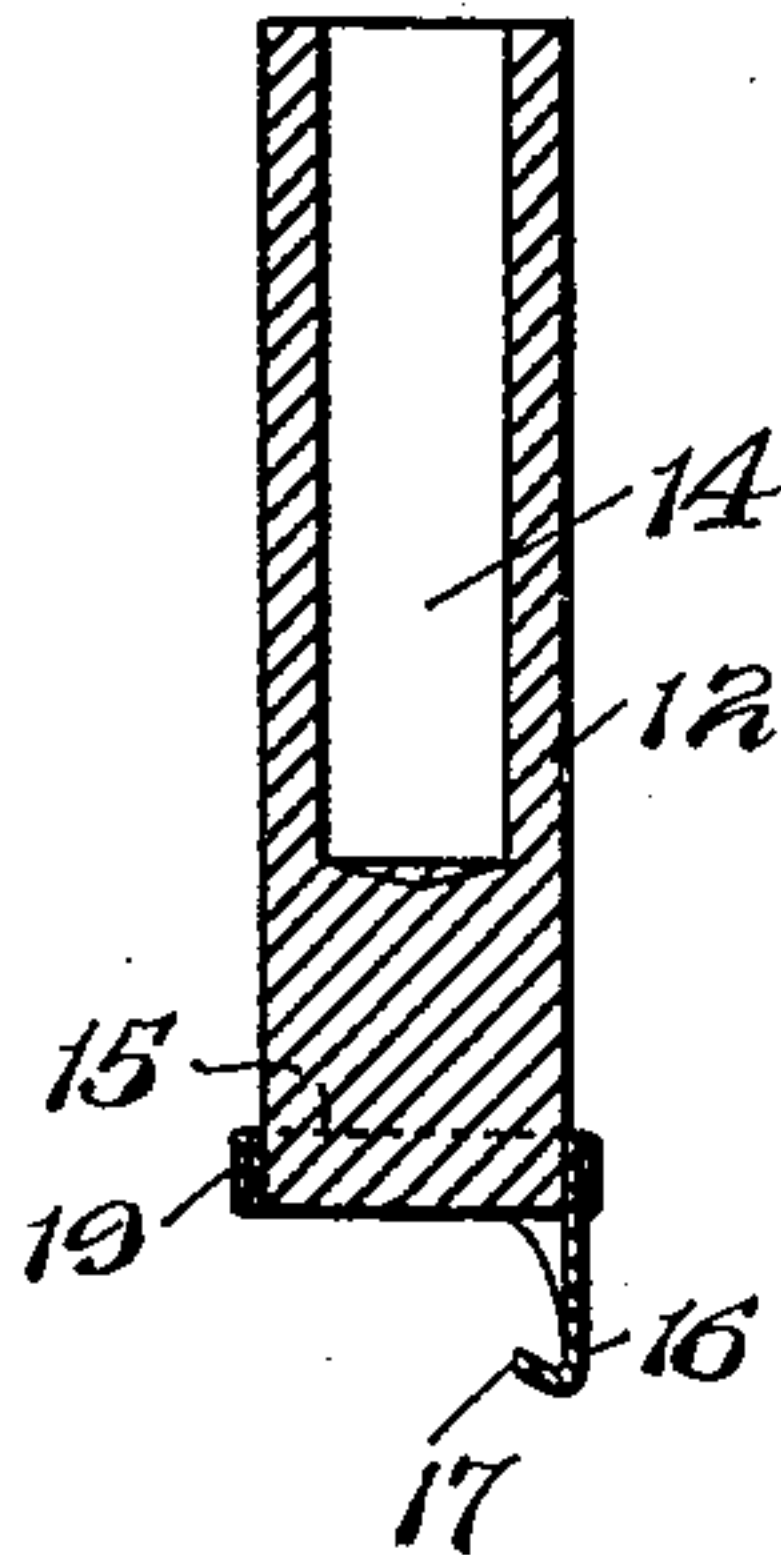


Fig. 4.

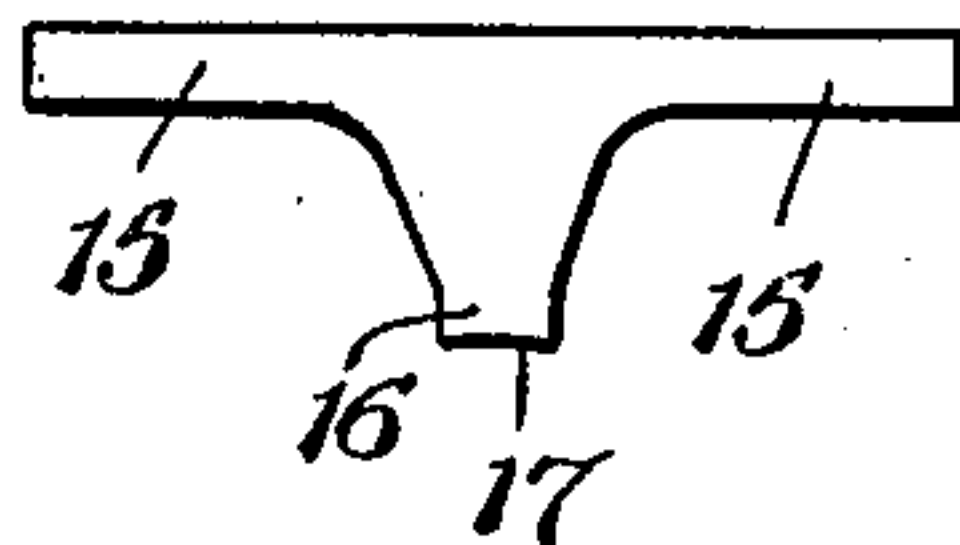


Fig. 7.

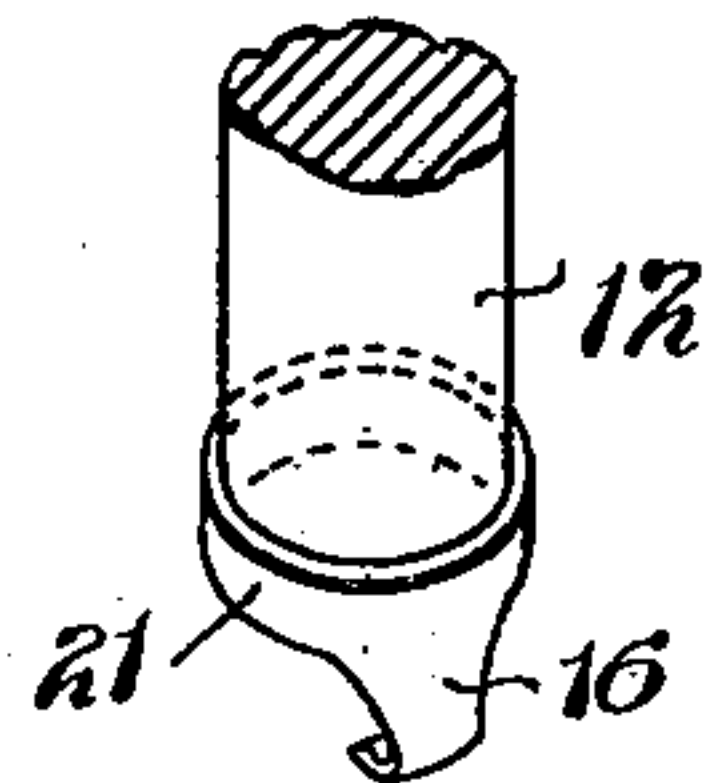


Fig. 5.

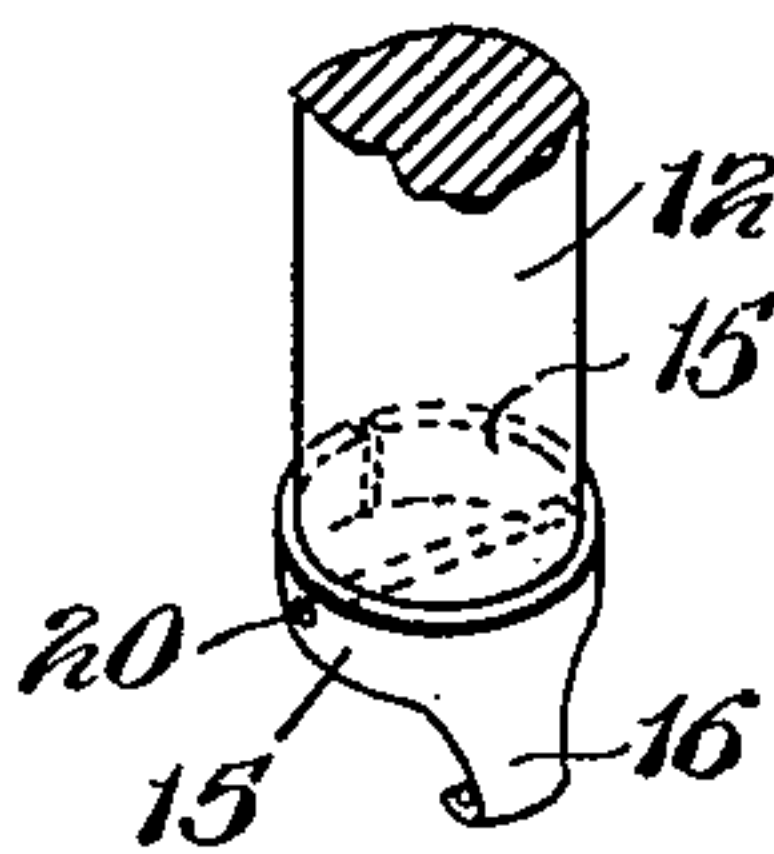


Fig. 1.

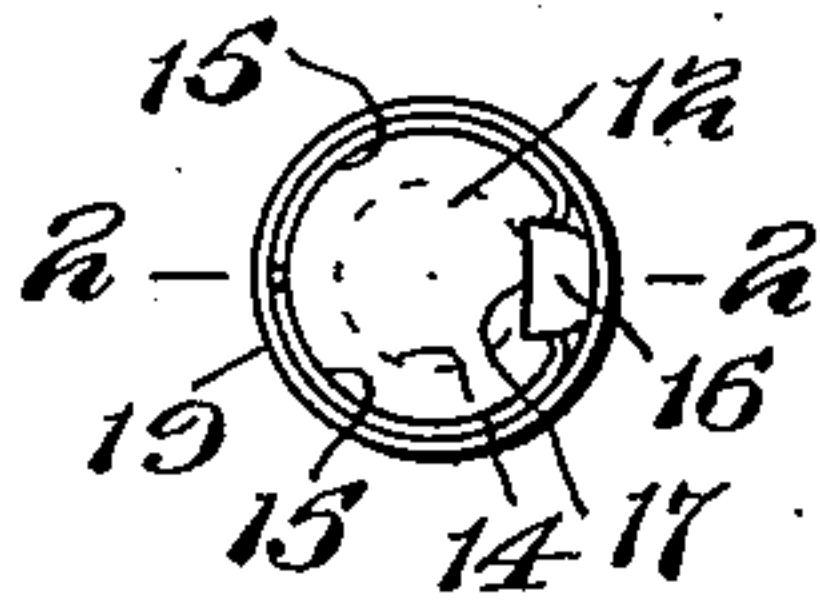


Fig. 10.

Fig. 3.

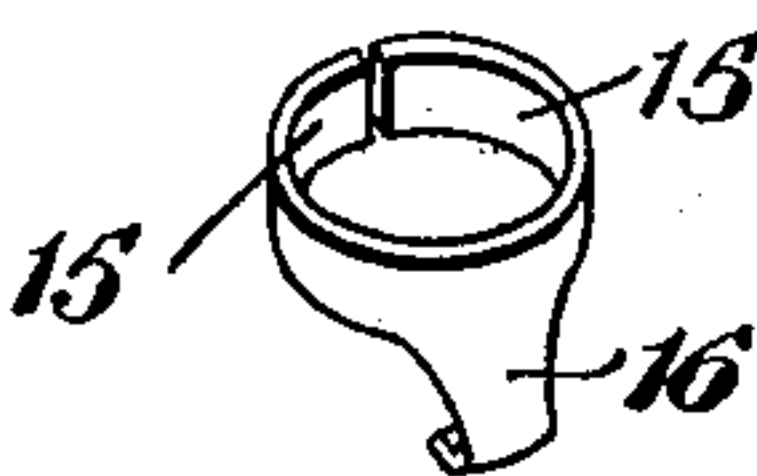


Fig. 6.

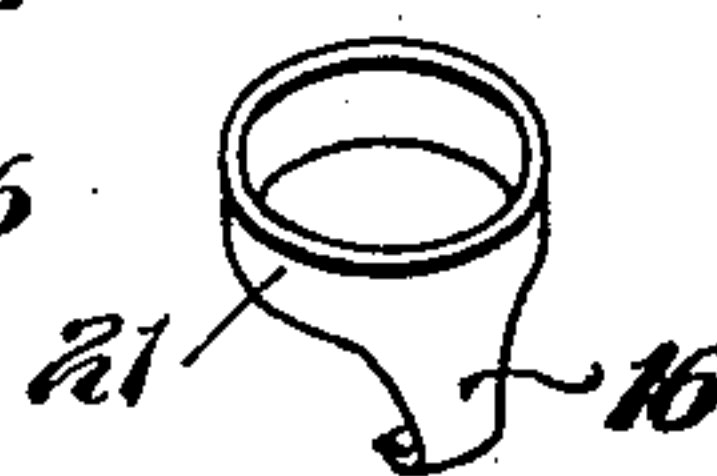


Fig. 9.

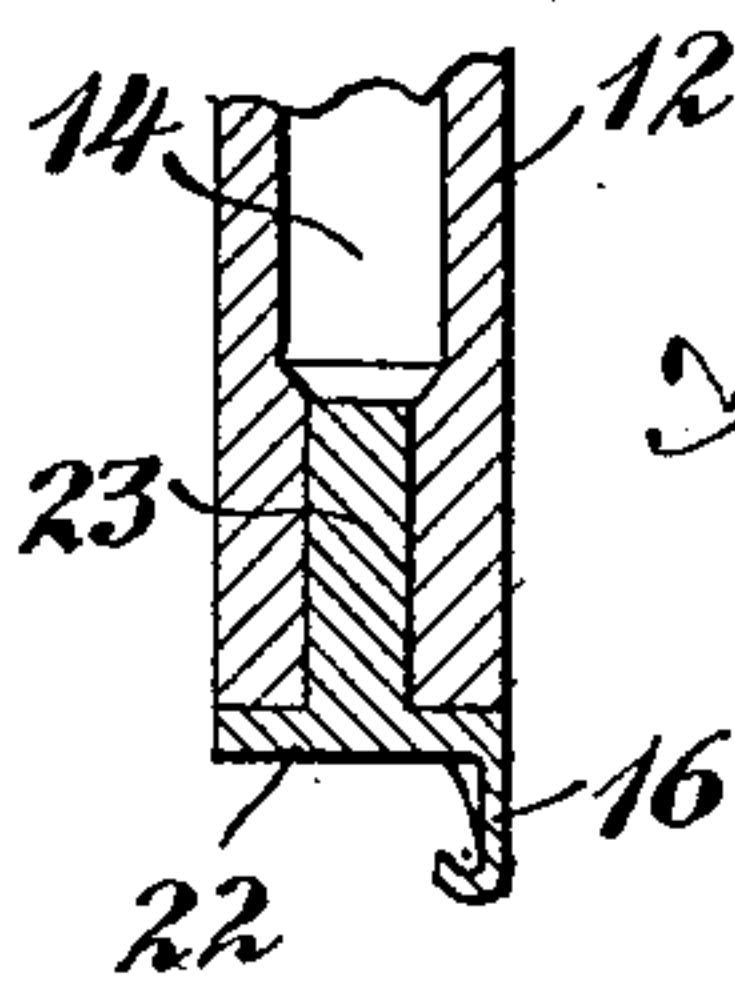
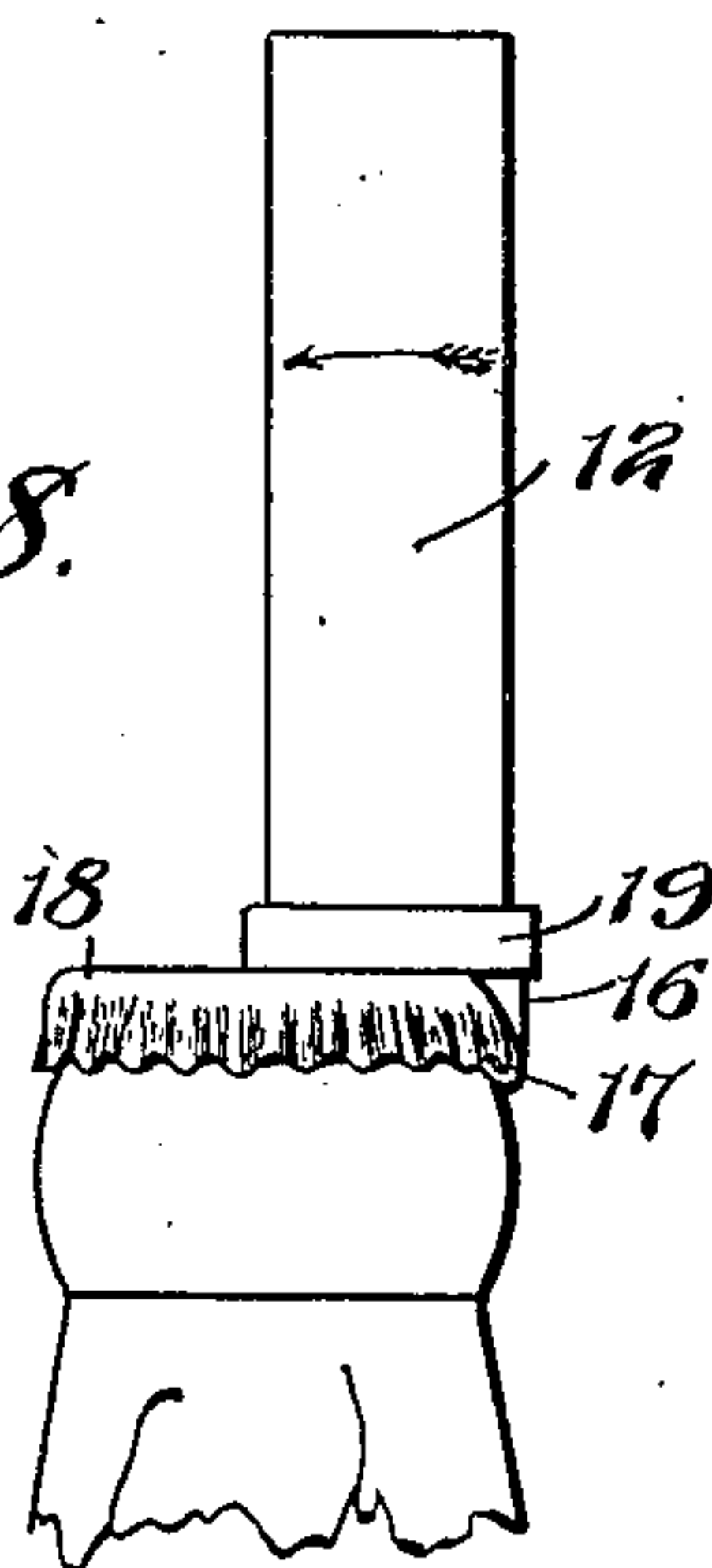


Fig. 8.



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UNITED STATES PATENT OFFICE.

AUGUSTUS W. STEPHENS, OF WALTHAM, MASSACHUSETTS.

BOTTLE-CAP REMOVER.

999,901.

Specification of Letters Patent.

Patented Aug. 8, 1911.

Application filed December 23, 1910. Serial No. 599,003.

To all whom it may concern:

Be it known that I, AUGUSTUS W. STEPHENS, of Waltham, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Bottle-Cap Removers, of which the following is a specification.

This invention relates to a device for detaching flanged caps from bottle necks by the lifting action of a lever which is fulcrumed on the top or body portion of the cap and is formed to engage the flange thereof so that a tipping movement of the lever on its fulcrum will withdraw the flange from engagement with the bottle neck.

The invention has for its object to provide a simple and inexpensive device for this purpose, adapted also to be used as a sheath for a corkscrew and carried in the pocket.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings which form a part of this specification,—Figure 1 represents an end view of a bottle cap remover embodying my invention; Fig. 2 represents a section on line 2—2 of Fig. 1; Fig. 3 represents a perspective view of the cap engaging portion of the member removed from the lever; Fig. 4 represents a view showing the blank from which the device represented by Fig. 3 is made; Fig. 5 represents a fragmentary perspective view showing a modification of the means shown in Figs. 1 and 2 for securing the cap-engaging member to the lever; Figs. 6 and 7 represent perspective views showing another modification; Fig. 8 represents a side elevation showing the device engaged with the bottle cap. Figs. 9 and 10 are detail sectional views illustrating slight modifications.

Similar reference characters indicate the same or similar parts in all the figures.

Referring first to Figs. 1, 2, and 3 which represent the preferred embodiment of my invention, 12 represents a handle or lever which is a cylindrical wooden rod of suitable length to constitute a lever and a holder for a corkscrew, the lever being bored to form a socket 14 adapted to have a frictional engagement with the spiral body of a corkscrew. The opposite end of the lever is closed and provided with a terminal mem-

ber which is formed from a metal blank (Fig. 4) including wings 15, 15, in alignment with each other, and an arm 16 extending at right angles with the wings. The wings 15 are bent, as shown by Fig. 3, to form a band adapted to embrace the closed end of the lever 12. The arm 16 is provided at its outer end with an inwardly projecting hook 17 adapted to engage the flange of a bottle cap 18, as shown by Fig. 8. The band formed by the wings 15 may be secured to the lever by any suitable means, the preferred means being a continuous ring 19 formed to surround said band and have a tight frictional fit thereon, the said ring clamping the band closely against the closed end of the lever.

In Fig. 5 I show the wings 15 secured to the lever by means of a pin 20 passed through holes in the wings and through the closed end portion of the lever.

In Figs. 6 and 7 I show the arm 16 provided with a continuous band 21 adapted to embrace and have a tight, frictional fit on the lever, this frictional fit being relied on to secure the terminal member in place. The described terminal member reinforces the outer end of the wooden lever, the portion which surrounds the end of the lever forming a shoulder adapted to bear on the body of the bottle cap which constitutes the fulcrum of the lever, while the arm 16 projects in alinement with one side of the lever at a distance from the portion of the said shoulder which bears on the fulcrum when the device is operated to remove the cap. It will now be seen that pressure exerted on the lever as indicated by the arrow (Fig. 8) will cause the shoulder portion of the terminal member to bear on the fulcrum, namely, the body of the bottle cap, the hook 17 of the arm 16 being at the same time engaged with the flange of the cap and caused to lift the same from the bottle neck. The extended bearing of the terminal member on the lever distributes the pressure so that there is no liability of compressing or crushing the material of the lever during the operation of removing the cap.

The terminal member in each of the described embodiments of my invention includes a shoulder adapted to bear on the cap at one side of the lever and to protect the adjacent portion of the lever against a compressing or crushing pressure on the cap, and an arm projecting substantially in

alinement with the opposite side of the lever, and therefore so spaced from said shoulder as to cause a lifting pull on the cap flange when the shoulder bears on the cap
5 and the lever is tipped, as indicated.

I claim:—

A bottle cap remover comprising an elongated handle or lever and a metallic terminal member secured to one end of the lever
10 and provided with an integral laterally extended hooked arm projecting substantially in alinement with the lever, and adapted to

engage the flange of a bottle cap, a portion of said member opposite said hook forming a fulcrum bearing serving to protect the
15 adjacent portion of the lever against a crushing pressure on the cap during the removing operation.

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

AUGUSTUS W. STEPHENS.

Witnesses:

C. F. BROWN,

J. M. MURPHY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."