L. MYERS.

BOTTLE CAP REMOVER.

APPLICATION FILED FEB. 17, 1919.

1,345,948. Patented July 6, 1920.

Fig. 1.

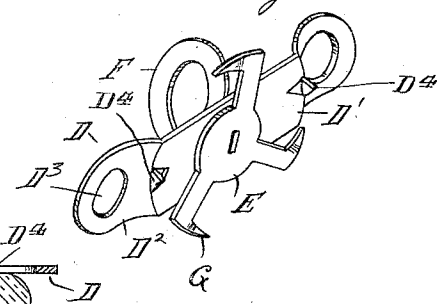


Fig. 2.

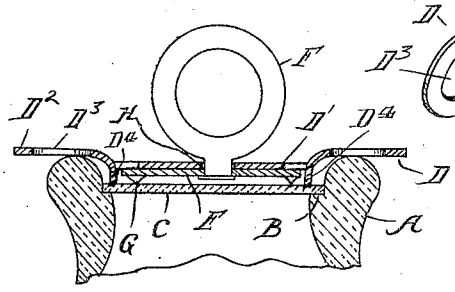


Fig. 3.

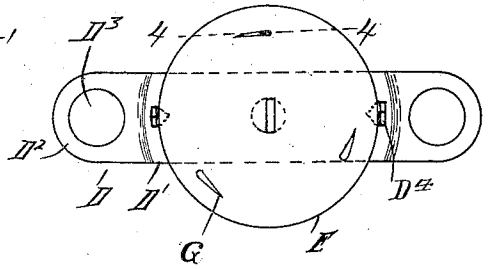


Fig. 6.

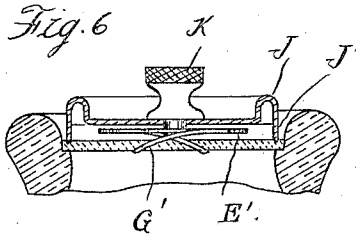


Fig. 4.

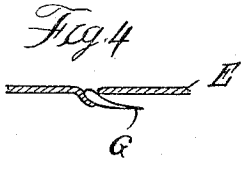
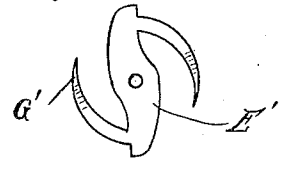


Fig. 5.



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BOTTLE-CAP REMOVER.

1,345,948. Specification of Letters Patent. Patented July 6, 1920.

Application filed February 17, 1919. Serial No. 277,440.

To all whom it may concern:

Be it known that I, LOUIS MYERS, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Bottle-Cap Removers, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to devices for the removal of paper caps for closures for milk bottles and similar containers, and the invention consists in the construction as hereinafter set forth.

In the drawings:

Figure 1 is a perspective view of the device;

Fig. 2 is a vertical central section showing the device in engagement with a bottle closure;

Fig. 3 is a bottom plan view showing a modified construction;

Fig. 4 is a section on line 4—4 of Fig. 3;

Fig. 5 is a view similar to Fig. 3 showing another modification;

Fig. 6 is a view similar to Fig. 2 with the construction shown in Fig. 5.

In the present state of the art, milk bottles and similar liquid containers are usually closed by paper caps or disks, which are seated upon a ledge in the mouth of the bottle. The usual method of removing these caps is the forcing of a tine of a fork or other sharp instrument into the paper to form a lever for lifting the same. There is, however, always danger of splashing milk by the pressure on the cap and the sudden release of one edge thereof. With my improvement the cap is engaged without possibility of over pressure thereon and when engaged can be readily lifted off and replaced.

In detail, A is a bottle having the ledge B on which is seated the cap C; D is a bar, preferably of pressed sheet metal, which extends across the top of the bottle, having a depressed central portion D′, turned up ends D^2 for fitting over the ledge, and one or more sharp prongs D^4 for pressing into the cap C near the periphery thereof. E is a member revolubly connected to the bar D on the under side thereof and having a handle F for revolving the same on the upper side of the bar. The member E has a plurality of sharpened prongs G which extend tangentially with a slight downward inclination. These prongs may either be made integral with the member D, as shown in Fig. 2, or they may be separate needle points which are secured to said member, as indicated in Fig. 3. The connection between the handle F and the member E is preferably by means of a shank, the said handle extending through an aperture H in the bar D and riveted or otherwise secured to the member E. The bar D has the portions D^2 thereof preferably cut away, as at D^3, for convenient engagement of the thumb and finger.

In use the device is placed over the mouth of the bottle and the bar D is pressed down by engagement of the thumb and finger with the portions D^2, which will press the prongs D^4 into the cap. The handle F is then given a slight rotary movement which will cause the sharpened prongs G to enter the paper and securely attach the member E thereto, the cap being held from rotation by the prongs D^4. The user may then lift the cap by the handle F and remove it from the bottle.

In Fig. 5 I have shown a construction in which the member E is provided with two segmental prongs G′ extending from opposite ends from a diametrically extending portion E′. The prongs are of sufficient length to be formed with sharp points which will readily engage the paper.

As shown in Fig. 6, the prongs G′ will engage with the central portion of the cap and as they are not far from the axis of rotation can be engaged with little resistance. In this modified construction in place of the cross bar D, I employ a circular member J having depending prongs J′ for engaging the cap near the periphery thereof. Also in place of the member F, a knob member K is used, the shank thereof passing through the member J and being attached to the member E′.

What I claim as my invention is:—

1. A bottle closure remover, comprising a member for extending across the mouth of the bottle, having finger grips at its opposite ends adapted to engage the bottle and one or more prongs for engaging the closure cap, a pronged member beneath said first-mentioned member in a plane parallel thereto, a handle above the same, and a shank on said handle passing through a central

aperture in said first-mentioned member into fixed engagement with said pronged member.

2. A bottle closure remover, comprising a member for extending diametrically across the mouth of the bottle, having finger grips at opposite ends thereof adapted to engage the bottle, a depressed central portion and one or more prongs for engaging the closure cap, a sheet metal member below said first-mentioned member in a plane parallel thereto and having a plurality of tangential prongs, a handle above said first-mentioned member, and a shank on said handle passing through an aperture in said first-mentioned member into engagement with said pronged member.

In testimony whereof I affix my signature.

LOUIS MYERS.