Sept. 3, 1935. F. M. HARGREAVES 2,013,209

TOOL FOR REMOVING JAR CAPS

Filed July 2, 1934

Fig. 1.

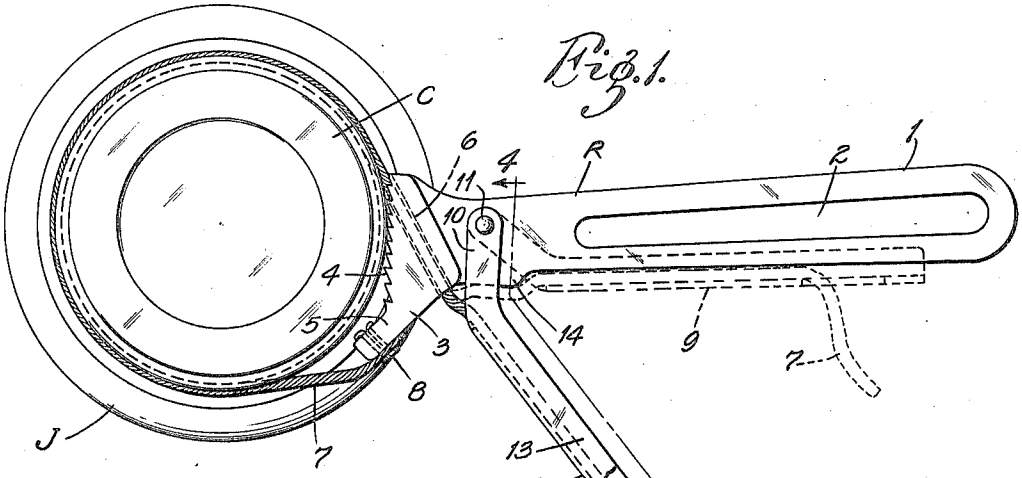


Fig. 2.

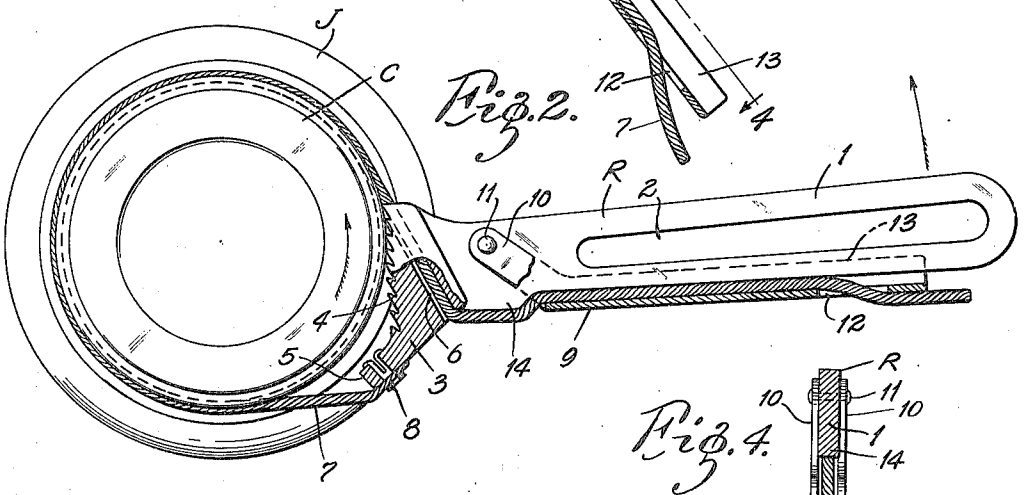


Fig. 3.

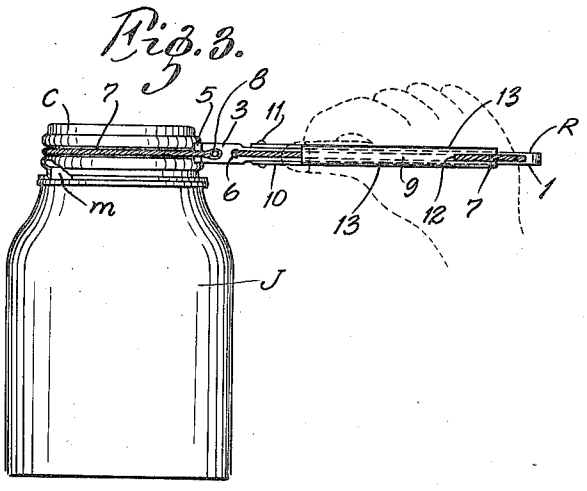
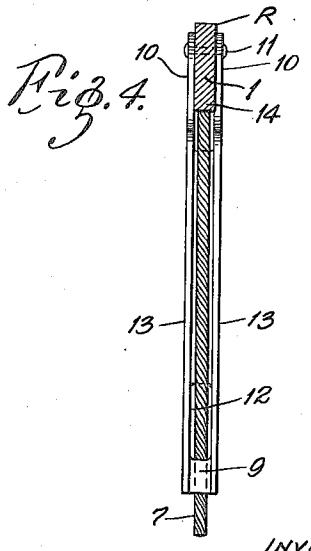


Fig. 4.



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TOOL FOR REMOVING JAR CAPS

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Application July 2, 1934, Serial No. 733,397

1 Claim. (Cl. 81—3.1)

My invention has relation to improvements in tools for removing jar caps, and it consists in the novel features of construction more fully set forth in the specification and pointed out in the claim.

My cap remover is primarily adapted for the removal of screw caps from containers such as Mason jars, and is adapted to operate with equal facility on caps of any size within the range of the tool.

The present invention is a continuation in part of the subject-matter of that of my co-pending application on can openers, Serial No. 712,266, filed February 21, 1934, and has for its principal object to securely hold the means that grip the jar cap, for which purpose a cable is provided to serve as a grip for the cap and said cable is clamped to the handle by means of a suitable lever. This object, as well as other advantages inherent in the invention, will be better apparent from a detailed description of the same in connection with the accompanying drawing, in which:

Figure 1 is a top plan of a jar showing my improved tool applied to a closure cap and in the position prior to exerting pressure on the tool for unscrewing the cap; Fig. 2 is a top plan similar to Fig. 1 showing the tool in a position it assumes when pressure is applied for the purpose of unscrewing the cap; Fig. 3 is a side elevation of a jar and closure cap (on a reduced scale) of my improved cap remover applied to the cap for the purpose of unscrewing the same; and Fig. 4 is a cross-sectional detail taken on the line 4—4 of Fig. 1.

Referring to the drawing, J represents the conventional type of jar having a threaded mouth *m* to receive a closure cap C. It is a matter of common knowledge that when such a jar has been tightly closed for some time for the preservation of its contents the closure cap C is often extremely difficult to remove on account of corrosion or adhesion caused by the contents of the jar. My improved cap remover R comprises a handle 1 having a longitudinally disposed opening or slot 2 formed in it and a jaw 3 formed on one end of said handle. The jaw 3 has an outwardly presented serrated surface 4 and a lug 5 projecting forwardly at an angle to said surface 4. There is also a slot or passageway 6 extending through the jaw 3 from the end thereof opposite to the lug 5 rearwardly at an angle to the surface 4. A cable 7 (preferably a wire) is secured at one end to the lug 5 by means of a bifurcated rivet 8, the other end of the cable being passed through the passageway 6 through which the cable slides freely for the purpose of adjusting the tool to different sizes of jar caps.

A channel-shaped lever 9 terminates in inwardly extending ears 10, 10 by means of which the lever is pivotally secured to the handle 1 near the jaw 3 by means of a rivet 11. An opening 12 is formed in the bottom of the lever 9 near the free end thereof and the cable 7 is nested between the channels 13, 13 of the lever and threaded through the opening 12, as shown (Figs. 1 and 2).

The purpose of the lever 9 is to provide means for securely gripping the cable 7 when the tool is applied to the cap for the purpose of removing the same. In order to augment the gripping effect of the lever 9 a boss 14 is provided on the lower edge of the handle 1 adjacent to the jaw 3, and the cable 7 is bent around this boss by the lever 9 when the latter is drawn close to the handle 1 and gripped with the handle in the application of the tool, as shown (Fig. 2).

In the operation of my cap remover the handle 1 is firmly held by the operator while the cable 7 is adjusted to the cap C so that there is no slack in it, the surplus cable being drawn through the channel of the lever 9 as just explained. The lever is then closed against the handle 1 and firmly gripped by the operator and firmly held against said handle by the operator who tilts the same, as shown in Fig. 2. This causes the lug 5 to move outwardly away from the jar and thus impose tension on the cable 7. The pressure thus exerted on the cap C causes the surface 4 to bite into the cap and the cable to firmly grip the cap, whereupon a continuation of the tilting movement of the handle 1 serves to loosen the cap from the threaded mouth end of the jar J so that the cap may be unscrewed therefrom.

The leverage provided by the handle 1 and the projecting lug 5 causes the cable to hug the cap very tightly so that it will not slip on the cap as the movement is continued but instead allows the leverage to be communicated to the cap for the purpose of loosening the same.

Having described my invention, I claim:

A cap remover comprising a handle having a jaw at one end, a lug projecting laterally from said jaw, a cable secured to said lug, said jaw having a suitable socket for receiving the free end of the cable, and a lever pivotally connected to the handle near the jaw, said lever being provided with a suitable recessed portion for receiving said cable, and arranged to be moved into nesting relation with the handle to effectively grip the cable between the lever and the handle.

FREDERICK M. HARGREAVES.