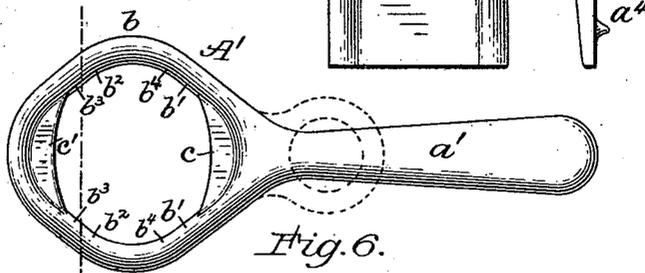
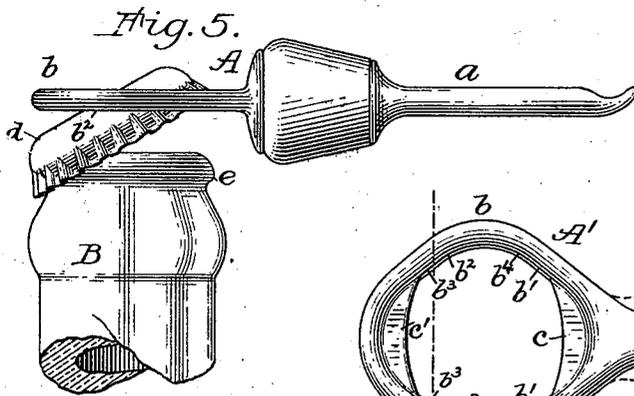
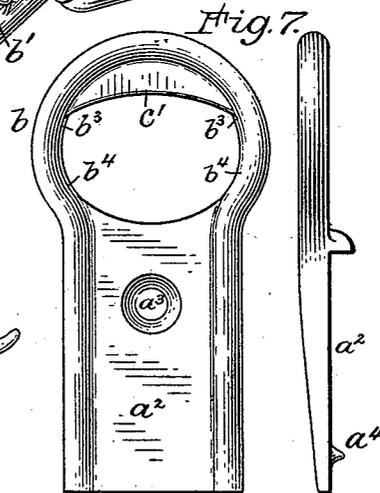
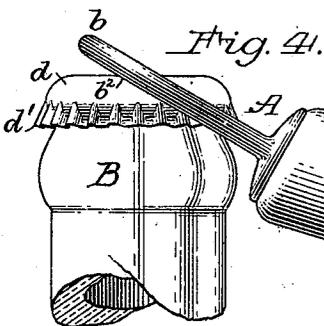
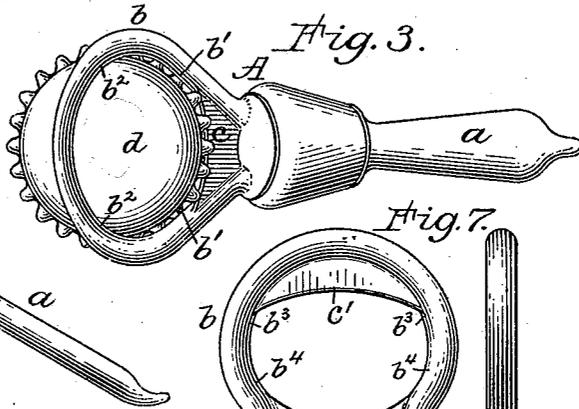
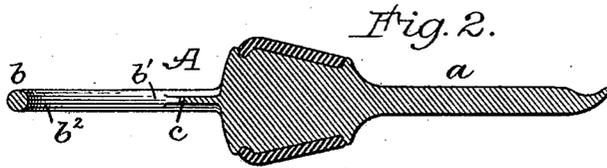
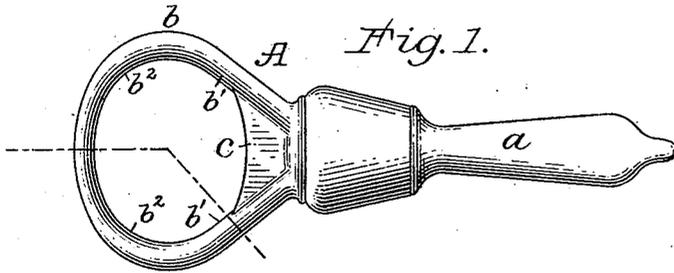


(No Model.)

W. PAINTER.  
CAPPED BOTTLE OPENER.

No. 514,200.

Patented Feb. 6, 1894.



Attest:  
Philip F. Larner.  
Howell Zettle.

Inventor:  
William Painter.  
By *[Signature]* Attorney.

# UNITED STATES PATENT OFFICE.

WILLIAM PAINTER, OF BALTIMORE, MARYLAND, ASSIGNOR TO THE CROWN CORK AND SEAL COMPANY, OF SAME PLACE.

## CAPPED-BOTTLE OPENER.

SPECIFICATION forming part of Letters Patent No. 514,200, dated February 6, 1894.

Application filed June 5, 1893. Serial No. 476,638. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM PAINTER, of Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Capped-Bottle Openers; and I do hereby declare that the following specification, taken in connection with the drawings furnished and forming a part of the same, is a clear, true, and complete description of my invention.

Bottle openers embodying my present invention are specially adapted for the removal of hard metal sealing caps from bottles having locking shoulders to which the caps have been so firmly applied as to require considerable force for effecting their detachment. My openers are however specially adapted to operate upon such caps as are provided with some kind of a projected edge with which the opener may be engaged so that it may be operated with leverage in wrenching or prying the caps from bottles.

My bottle opener essentially embodies a handle, having at one end thereof, a cap centering gage, and also a cap engaging lip, and however these three elements may be formed and combined, the centering gage should also afford a fulcrum, with respect of the handle and the cap engaging lip, and the latter should be substantially in line with the handle, so that when the opener is applied to a capped bottle, the gage will assure an appropriate bearing or fulcrum on top of the cap, with the lip located beneath or underlying a portion of the cap, and so enable the handle to serve as a lever for removing the cap from the bottle. Although without departure from my invention these three essential elements may be separately constructed and combined to form my bottle opener, they are more economically constructed integrally of iron or other suitably strong metal, as by molding or casting the opener in one piece, and it is in this form that my opener will be more particularly described.

Figures 1 and 2, illustrate one of my openers in a desirable form in side view, and central longitudinal section. Fig. 3, illustrates the opener applied to a cap in top view. Figs. 4 and 5, illustrate respectively, the opener applied to a capped bottle, and the

same with the cap partially lifted. Fig. 6, illustrates one of my openers, provided with two cap engaging lips. Fig. 7, in two views, illustrates one of my openers adapted to be mounted on a table or counter.

The bottle opener A here shown embodies not only my present invention, but also certain features disclosed in Letters Patent No. 438,710, October 21, 1890, which not only enable this opener to be used for removing certain inside loop seals as heretofore patented to me, but also enable the opener to be used as a temporary stopper, this latter feature being generally useful regardless of the character of the bottle sealing devices employed. For the purposes of this specification, however, the handle *a* may be considered only as a handle, serving as a lever in connection with the centering gage, *b*, and the cap engaging lip *c*. This centering gage *b* is in the form of an open loop, having lateral dimensions considerably less than the diameter of the caps with which it is to be used, so that its two sides at *b'*, *b'*, will be in gaging contact with the sides of a bottle cap, when the engaging lip *c* is beneath the detaching shoulder of the cap. Other portions of the centering gage, as at *b<sup>2</sup>*, *b<sup>3</sup>*, engage in bearing contact with upper surfaces of the cap, and serve as fulcra during the operation of the opener. The cap engaging lip *c* is a well defined bearing surface substantially in line with the handle *a*, and therefore substantially central with respect of the centering gage, and when arranged in line with the axis of the handle *a*, the opener can be applied either side upward to a cap and be equally effective.

As shown in Figs. 3, 4, and 5, the bottle cap *d* is one of several forms of sealing caps heretofore patented to me, and when applied to a bottle B, having a locking shoulder as at *e* with which the flange of the cap has been forced into locking contact, considerable force is required for detaching the cap. With such caps a projected edge is afforded for engagement by the bottle opener, the latter being equally effective whether said projected edge *d'* is located at and afforded by the lower portion of the flange of the cap, or between said edge and the top of the cap, as in other forms

of cap devised by me, which are also applied to and fastened upon bottle heads having the same locking shoulder *e*.

As shown in Figs. 3 and 4, when the opener  
 5 A is placed in proper relation to the cap *d*,  
 the gaging contacts *b'*, *b'*, on the centering  
 gage *b*, enable and assure a proper adjust-  
 ment of the cap engaging lip *c*, with relation  
 to, and underlying the projecting detaching  
 10 edge or shoulder *d'*, while the fulcrum con-  
 tacts at *b*<sup>2</sup>, *b*<sup>2</sup>, on said gage are in bearing con-  
 tact with the top of the cap, so that when the  
 handle is raised as in Fig. 5, the cap will be  
 15 pried from the bottle.  
 Although the opener A is in what I deem  
 to be its best form, because it is adapted for  
 use with both inside seals and metallic or  
 crown sealing caps, as well as for use as a  
 20 temporary stopper, it is to be distinctly un-  
 derstood that my present invention relates  
 solely to the handle, the centering gage and  
 the cap engaging lip, and that the latter  
 may be varied as to its location, without de-  
 25 parture from my invention, so that the lever  
 movement of the handle may be reversed, as  
 for instance, with the opener A', as shown in  
 Fig. 6. In this opener the handle *a'* is a mere  
 handle. The centering gage *b* is substan-  
 30 tially as before described with respect of the  
 gaging contacts *b'*, *b'*, and the fulcrum con-  
 tacts *b*<sup>2</sup>, *b*<sup>2</sup>, and the cap engaging lip *c*, is the  
 same as in the opener A, so that with metal caps  
 this opener can be operated precisely like the  
 35 other if desired. This opener has however a  
 cap engaging lip *c'* substantially in line with  
 the handle but at the inner side of the outer  
 end of the loop, and for co-operating there-  
 with this centering gage has appropriate gag-  
 40 ing contacts *b*<sup>3</sup>, *b*<sup>3</sup>, and fulcrum contacts *b*<sup>4</sup>, *b*<sup>4</sup>,  
 so that when applied to a cap with the lip *c'*  
 underlying a projected portion of a metal cap  
 the handle *a'* will be inclined upward or away  
 45 from the bottle, and cap detaching will be ef-  
 fected by forcing the handle downwardly in-  
 stead of upwardly as with the opener A.

With my openers composed of plate steel,  
 the handles may be quite short, and the cen-  
 tering gage may terminate near the fulcrum  
 points, all as indicated in dotted lines in Fig. 6.

When my openers are to be used as fixtures  
 50 on benches or counters, a wide flat handle is  
 generally desirable as shown at *a*<sup>2</sup> in Fig. 7.  
 A screw-hole with a transverse web *a*<sup>3</sup> and  
 puncturing points *a*<sup>4</sup> on the rear side, enable  
 the opener to be firmly mounted for service.  
 55 The centering gage, with its gaging contacts  
*b*<sup>3</sup>, *b*<sup>3</sup>, and fulcrum contacts *b*<sup>4</sup>, *b*<sup>4</sup>, are as be-  
 fore described, and the same is true of the  
 cap engaging lip *c'*. It will be obvious that  
 it is only the central portion of either of the  
 60 lips shown, that need actually engage with a  
 sealing cap, and hence it will be seen that the  
 edge outline of said lip may be widely varied  
 without impairing its cap engaging capacity.

It will be obvious that while it is highly con-  
 65 ducive to efficiency to have two gaging con-  
 tacts, one at each side of the cap engaging lip,  
 either one of said gaging contacts may be re-  
 lied upon for proper service; as, for instance,  
 if the other contact and one of the fulcrum  
 70 contacts be removed, as indicated by the dot-  
 ted line in Fig. 1.

Having thus described my invention, I  
 claim as new and desire to secure by Letters  
 Patent—

75 A capped bottle opener consisting of a suit-  
 able handle, provided with a cap engaging lip  
 adapted to underlie a portion of an applied  
 bottle sealing cap, and also having a center-  
 80 ing gage affording gaging contact with the  
 side of the cap adjacent to the engaging lip,  
 and still further affording fulcrum contact for  
 enabling bearing engagement with the upper  
 portion or top of the cap, substantially as de-  
 scribed.

WILLIAM PAINTER.

Witnesses:

WALLACE ROBB,  
 T. R. ALEXANDER.