

UNITED STATES PATENT OFFICE.

ALBERT DUDLY, SR., OF MENOMINEE, MICHIGAN.

STOPPER-EXTRACTOR.

No. 847,744.

Specification of Letters Patent.

Patented March 19, 1907.

Application filed February 17, 1906. Serial No. 301,692.

To all whom it may concern:

Be it known that I, ALBERT DUDLY, Sr., a citizen of the United States, residing at Menominee, in the county of Menominee and State of Michigan, have invented certain new and useful Improvements in Stopper-Extractors; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to stopper-extractors, and has for its object to provide an extractor having features of construction adapting it for the removal of different types of stoppers or closures from bottles or the like and enabling parts thereof to be folded within the handle portion of the device, the construction making it possible to manufacture the device at comparatively small expense and to provide an efficient device for the purposes stated convenient in use and possessing strength and durability.

To the accomplishment of the foregoing and such other objects as may hereinafter appear the invention consists in the features and in the combination of parts hereinafter particularly described and then sought to be clearly defined by the claims, reference being had to the accompanying drawing, forming a part hereof, and in which—

Figure 1 is a vertical longitudinal section through the device, showing its extracting-prongs in their folded position in full lines and in their operating position in dotted lines. Fig. 2 is a top view of Fig. 1; Fig. 3, an end view of the handle portion of the device; Fig. 4 an elevation, and Fig. 5 a cross-section, of the claw-prong; Fig. 6 an elevation, and Fig. 7 a cross-section, of the knob-prong; Fig. 8, a side view illustrating the manner of using the prongs for extracting a cork stopper from a bottle; Fig. 9, a side view illustrating the manner of using the claw and curved arm for removing a "crown" stopper or cap; Fig. 10, a side view illustrating the manner of using the claw for removing a seal from the stopper of a bottle. Fig.

11 is a side view illustrating the manner of removing the wire from a cork stopper.

In the drawing the numeral 1 indicates what for convenience I will designate as the "handle" and which in the form illustrated is preferably made of metal and formed with a longitudinally-extending slot 2, which is interrupted near one end by a cross-bar or neck 3, and at the other end by a lower cross-bar 4 and an upper cross-bar 5, which latter preferably lies slightly below the top plane of the handle, so as to form a recess or depression 6 to receive what for convenience will be designated as a "locking-plate" 7, the same being held to the cross-bar 5 by a screw 8 or otherwise, and which is formed with a lip 9, designed to enter a notch in one of the extracting-prongs hereinafter described, so as to hold it within the handle. The handle at one end is formed with a curved arm 10, which serves, among other purposes, to coact with a claw, hereinafter described, in extracting or removing a stopper or cap of the crown type.

The handle 1 is also provided with two prongs 11 and 12, each of which as a matter of preference has one of its faces convex in form and the other face flat, as illustrated in the drawing. The prong 11 is formed at one end with a claw 13 and is pivotally connected by a pin 14 to the handle 1, so that it may lie within the handle lengthwise thereof, as shown by full lines in Fig. 1, when not used in conjunction with the other prong for extracting a stopper, and when in the position referred to its point or free end will bear against a part of the handle—for instance, against the under side of the locking-plate 7—which will prevent it from passing all the way through the slot in the handle, and when the prong is in the position indicated by dotted lines, so as to coact with the other prong in extracting a stopper, the claw 13 may bear against the cross-bar 3, which will serve to brace the prong and steady and stiffen the connection between it and the handle in the operation of forcing the prong down between the cork and the neck of a bottle in applying it for the extraction of the stopper. The other prong 12 is formed with a shank 14' and a knob 15, and the shank is formed with

a notch 16, designed to receive the lip 9 of the plate 7, so as to lock said prong in position when it lies lengthwise within the handle, as shown by full lines in Fig. 1 of the drawing.

5 When in this position, said prong will also hold the other prong in position within the handle.

When the two prongs are to be used for extracting a stopper, the prong 12 is withdrawn
10 after being released from the locking-plate and is inserted through the slot in the handle, so as to stand in the position indicated by dotted lines in Fig. 1, and the prong 11 is allowed to drop to the position shown by dotted lines in the same figure. The prongs are
15 then forced into position between the cork and mouth of the bottle, as indicated in Fig. 8 of the drawing, and then by pulling on the handle the cork will be withdrawn, and by
20 slightly turning the extractor in the operation the withdrawal of the stopper will be made easier. When the prongs are in the position for extracting a stopper, the shoulder or offset between the claw 13 and the pivotal
25 connection of the prong 11 to the handle will serve as an abutment for the cross-bar 3 of the handle to bear against, so that the handle will stand practically at right angles to the prongs, as shown in Fig. 8, instead of being
30 allowed to drop or swing downward, and the knob 15 will serve the palm of the hand to bear against, and the arm 10 can be grasped by a finger of the hand, so that a firm and comfortable grip of the hand on the extractor can be obtained in extracting the cork.

When the extractor is used for removing a stopper or cap 17 of the crown type, the prongs are held within the handle in the position shown in full lines in Fig. 1 of the
40 drawing, and the device is applied so that the claw 13 will grip the crimped edge of the cap and the curved arm 10 will bear against the top of the cap, so as to be fulcrumed thereon, and then by pulling up on the handle as a lever the cap will be readily removed, as indicated in Fig. 9 of the drawing.

In removing a seal 18 from the stopper the claw will be made to pierce the seal, and by bearing down on the handle, which may bear
50 against the neck of the bottle as a fulcrum, the seal will be readily detached.

When the prongs are folded within the handle, the device can be carried in the pocket without inconvenience. The device
55 possesses also the merit of being readily adapted for removing various types of stoppers and cutting a stopper-holding wire with ease and expedition and without injury to the stopper.

60 I have illustrated and described with particularity the preferred details of construction and arrangement of the several parts; but it is to be understood that I am not limit-

ed to details except as the same may be specified in some of the claims.

Having described my invention and set forth its merits, what I claim is—

1. The stopper-extractor comprising a handle formed at one end with a curved arm, and two prongs mounted thereon and adapted to lie parallel with the handle and capable of adjustment so as to stand at right angles to the handle in position to be inserted one on each side of a bottle-cork, one of said prongs being formed with a claw so
75 situated that when the prong lies parallel with the handle the claw is in position to coact with the curved arm to remove a bottle-cap, substantially as described.

2. The stopper-extractor comprising a handle having a curved arm at one end and provided adjacent to said arm with a pivoted prong adapted when moved into position at right angles to the handle to be inserted between a cork and neck of a bottle, and provided at one end with a claw so situated that when the prong lies parallel with the handle said claw is in position to coact with the curved arm of the handle to remove a bottle-cap, substantially as described.

3. In a stopper-extractor, a handle having sides spaced apart and formed at one end with an extending arm, a prong formed with a claw at one end and pivoted to the handle so as to be moved into position at right angles thereto or a position between the sides of the handle, in which position the claw is adapted to coact with the extending arm for the removal of bottle-caps, a second prong separable from the handle and adapted for adjustment therein at right angles thereto so as to coact with the first prong when at a similar position for drawing a cork, and also adapted to be inserted within the handle lengthwise thereof in position below the pivoted prong when folded into the handle, and means to lock the separable prong in the handle and thereby retain the claw of the pivotal prong in operative position.

4. A stopper-extractor, comprising a slotted handle, a pair of prongs, one of which is pivotally connected to the handle, the shank of said prong being extended beyond the pivot to form a claw, and a cross-bar extending across the slot of the handle in such position that the said claw is adapted to bear thereagainst to limit the movement of the prong at a position at right angles to the handle, the other prong being capable of adjustment on the handle at right angles thereto to coact with said pivoted prong to extract a bottle-cork.

5. In a stopper-extractor, a handle having an extension at one end thereof, a prong pivoted on said handle to be approximately parallel therewith or at substantially right

angles thereto, the shank of said prong being extended beyond said pivot to form a claw which is positioned to coact with the extension of the handle to remove a bottle-cap
5 when the prong is in folded position parallel to the handle, and adapted to contact with a portion of the handle to limit the movement of the prong to the position at right angles thereto, and a second prong adapted

to be held on said handle at right angles to thereto to coact with said pivoted prong to remove a bottle-cork.

In testimony whereof I affix my signature in presence of two witnesses.

ALBERT DUDLY, SR.

Witnesses:

GEORGE G. GREENE,
HERMAN HEINRICH.