No. 773,857 PATENTED NOV. 1, 1904.

# J. D., R. A. & A. F. EFFENBERGER.

## CORK EXTRACTOR.

APPLICATION FILED APR. 9, 1904.

NO MODEL

2 SHEETS—SHEET 1.

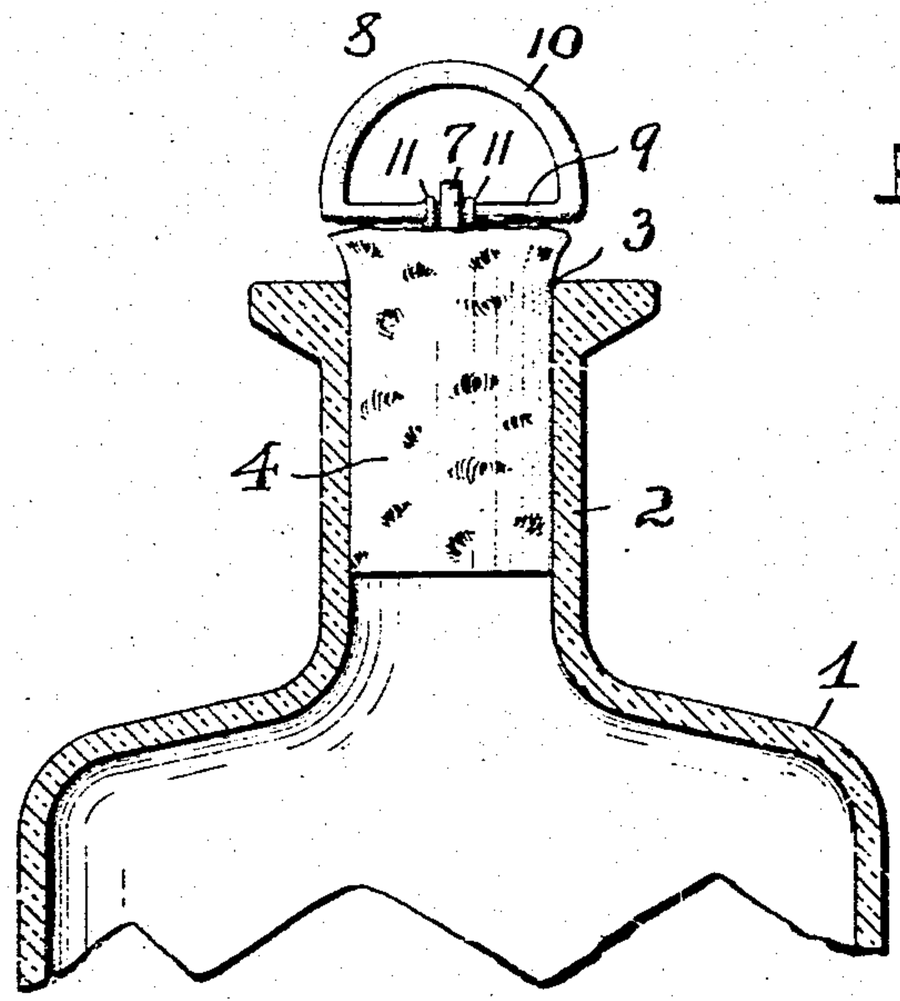
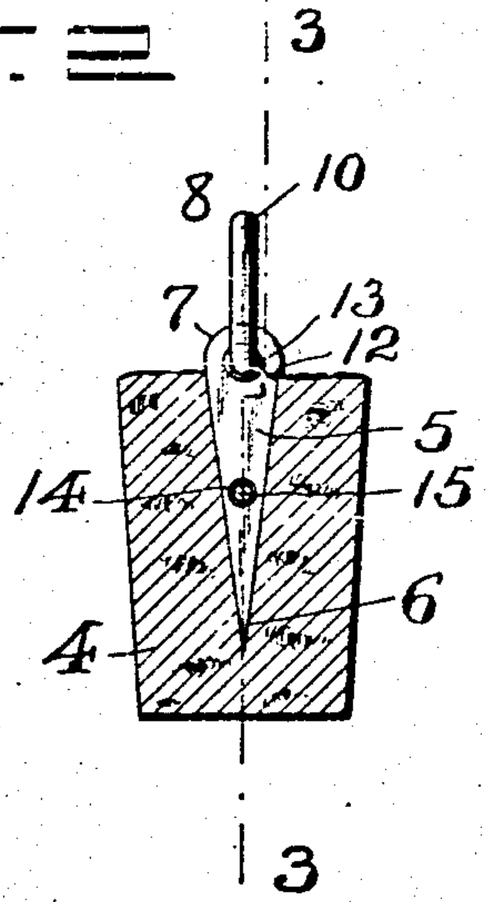



Fig. 1

Fig. 2



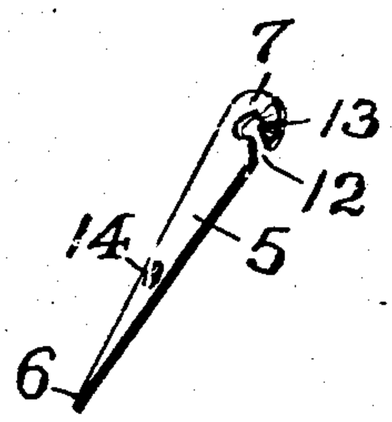




Fig. 3

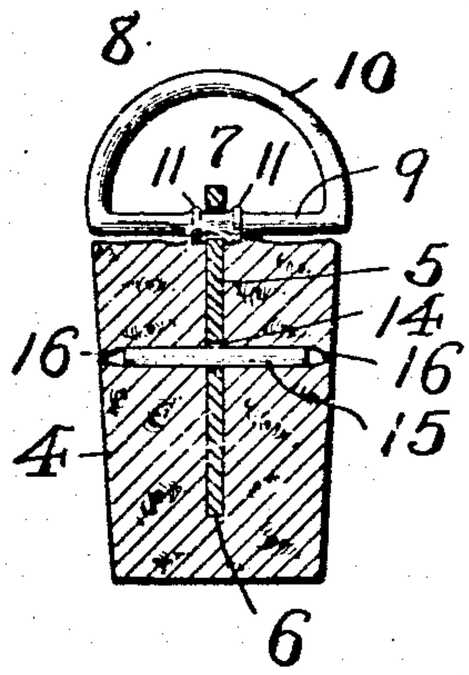



Fig. 4

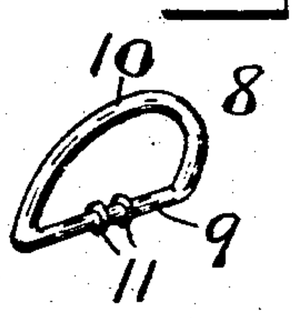



Fig. 5

WITNESSES:

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CORK EXTRACTOR.

APPLICATION FILED APR. 9, 1904.

NO MODEL. 2 SHEETS—SHEET 2.

Fig. 5

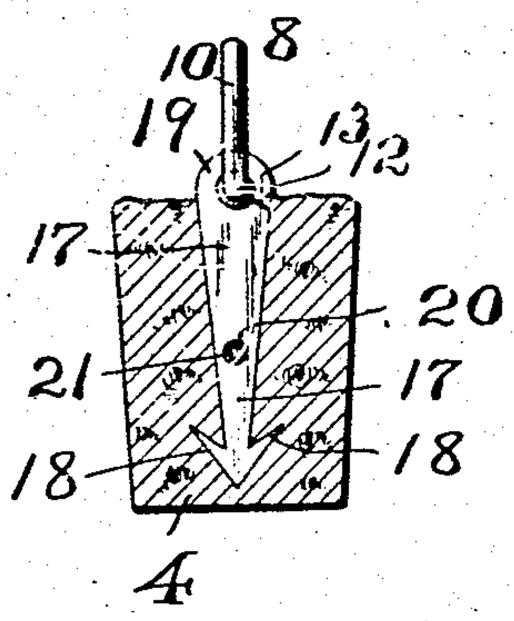
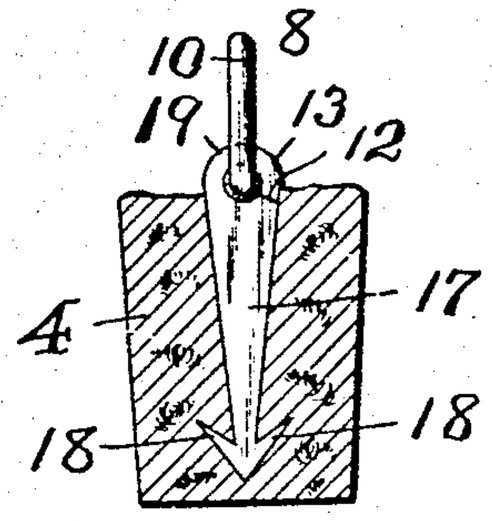



Fig. 7



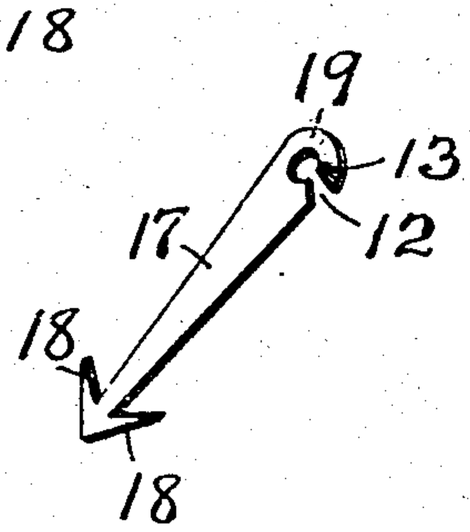




Fig. 8

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No. 773,857. Patented November 1, 1904.

# UNITED STATES PATENT OFFICE.

JOSEPH D. EFFENBERGER, ROMIE A. EFFENBERGER, AND AUGUSTUS F. EFFENBERGER, OF ORANGE, NEW JERSEY.

## CORK-EXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 773,857, dated November 1, 1904.

Application filed April 9, 1904. Serial No. 202,359. (No model.)

*To all whom it may concern:*

Be it known that we, JOSEPH D. EFFENBERGER, ROMIE A. EFFENBERGER, and AUGUSTUS F. EFFENBERGER, citizens of the United States, residing at Orange, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Cork-Extractors; and we do hereby 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 figures of reference marked thereon, which form a part of this specification.

Our invention relates to improvements in extractors for the corks or stoppers of bottles and other packages containing liquids or the like; and the invention has for its principal object to provide a combined cork or stopper and an extractor therefor which shall be of a very simple construction and one which can be easily applied to the body of the cork or stopper and when applied cannot be pulled from its connected and operative relation with the body of the cork or stopper.

A further object of this invention is to provide a combined cork or stopper and extractor embodied in the body of the cork or stopper in such a manner that there shall be no parts of the metal extractor exposed to any possible contact with the liquid contained in the bottle or package with which the cork or stopper is used, so as not to produce an unsanitary condition, and one which may be deleterious to the contents of the package.

With the various objects of the present invention in view the same consists in the novel construction of extractor for corks or stoppers hereinafter more fully set forth; and, furthermore, this invention consists in the various arrangements and combinations of the devices and parts which are hereinafter more particularly described and then finally embodied in the clauses of the claim which are appended to and form an essential part of this specification.

The invention is clearly illustrated in the accompanying drawings, in which—

Figure 1 is a sectional representation of a portion of a bottle with the combined cork or stopper and extractor represented in side elevation in position in the mouth of the neck of the bottle. Fig. 2 is a transverse vertical section of the cork or stopper and an elevation of the extractor in its position embedded and secured in the body of the cork or stopper; and Fig. 3 is a similar sectional representation of the cork and extractor, the said section being taken on line 3 3 in said Fig. 2, but representing the pivotal finger or pull piece of the extractor in elevation. Figs. 4 and 5 are perspective views of portions of the extractor in their detached relation. Figs. 6 and 7 are two sectional representations of two stoppers and face views of extractors connected with the said stoppers, both being of a slightly-modified form of construction; and Fig. 8 is a perspective view of the extractor member or body of the form of extractor represented in said Fig. 7.

Similar characters of reference are employed in the above-described views to indicate corresponding parts.

Referring now to the said drawings, the reference character 1 indicates any suitable form of bottle or similar package. 2 indicates its neck, and 3 the mouth of the said neck, adapted to receive a stopper or cork 4, which may be of any usual material—such as cork, rubber, or the like. This cork or stopper 4 is provided, as will be noticed from the several figures of the drawings, with a suitably-constructed extractor or pull device embodied in and forming a part of the said cork or stopper, as will presently appear. From an inspection of the several figures of the drawings it will be seen that the said extractor consists, essentially, of a spear-shaped body bar or rod 5, having a lower pointed end portion 6 and an upper perforated pull portion or part 7, in which is pivotally arranged a suitable loop 8, of cast or other metal, the said loop 8 being made, preferably, as shown, with a straight cross-bar 9 and a curved connecting member 10; but of course it will be evident that this form of pull or finger piece may be changed without departing from the scope of our present invention, and any other suitable form of finger-piece may be employed, if desired.

The said cross-bar 9 of the loop 8 is preferably made with a pair of annular ribs or shoulders 11, which are arranged on opposite sides of the said perforated end or pull portion 7 of the extractor body, bar, or rod 5, thereby preventing any lateral movement of the said pull or finger piece without interfering with its pivotal motion and retaining the said finger or pull piece in its proper alinement upon the upper face of the cork or stopper when the said extractor bar or body is driven into the said cork or stopper, as will be clearly understood. That the said cross-bar 9 of the said pull or finger piece 8 can be suitably arranged in the perforation of the pull portion or part 7 of the extractor body, bar, or rod 5 with its ribs or shoulders 11 resting against the opposite sides of the upper part 7 of the said extractor body, bar, or rod 5, the said part 7 is made with a suitable slit, as 12, to permit of the bending to one side of a portion 13, as represented in Figs. 4 and 8 of the drawings, and thereby allow the passing of the part 9 of the loop 8 in position in the perforated pull portion or end part 7 and then by closing or bending back into place the said portion 13 having pivotally united the pull or finger piece with the upper end portion of the said extractor bar, rod, or body 5. From an inspection of the figures of the drawings it will be seen that the said extractor body, bar, or rod 5 is shorter than the full depth of the cork or extractor, so as not to pierce the lower surface of the cork or stopper when driven into position. The said extractor body, bar, or rod 5 is furthermore provided with a hole or perforation 14, into and through which is driven a locking or holding pin 15, which extends laterally through the body of the cork or stopper on opposite sides of the said extractor body or bar 5 to positively prevent the said extractor body, bar, or rod from being pulled from the body of the cork or stopper when in the act of drawing a tightly-fitting cork or stopper from the mouth of the neck of the bottle. From an inspection of Fig. 3 of the drawings it will be noticed that this locking or holding pin 15 is preferably made shorter than the width of the cork or stopper, whereby after the said pin has been driven into position the portions 16 of the cork or stopper will close themselves about the ends of the said locking or holding pin 15, that there may be no exposed parts of the metal which might possibly come in contact with the liquid to the detriment of the latter.

In lieu of the form of extractor body, bar, or rod 5 (represented in Figs. 2, 3, and 4) an extractor body, bar, or rod 17 (indicated in Figs. 6, 7, and 8) may be employed, this body, bar, or rod being provided at its piercing end, which is to be forced into the cork or stopper, with barbs 18 in the manner of an arrowhead, which embed themselves in the body of the cork or stopper, as shown, and prevent the withdrawal of the said extractor body, bar, or rod 17 from the cork or stopper when pulling the latter from the bottle. The upper end portion 19 of this form of extractor body, bar, or rod 17 is made like the body, bar, or rod 5 of the construction represented in Figs. 1, 2, and 3 to receive the loop or finger-piece 8, as clearly illustrated. If desired, the extractor bar, rod, or body 17 may also be made with a perforation 20 for the reception of a locking or holding pin 21, driven laterally through the body of the cork or stopper, as clearly indicated in Fig. 6 and in the manner of the construction represented in said Figs. 2 and 3 of the drawings.

The usefulness of the device for the purposes of our invention and its simplicity and cheapness of construction are clearly evident and need not be further dwelt upon.

We are fully aware that changes may be made in the details of the construction of the device without departing from the scope of our invention. Hence we do not limit our invention to the exact arrangements and combinations of the parts of the device as described in the foregoing description of the same and as illustrated in the accompanying drawings, nor do we confine ourselves to the exact details of the construction of the extractor.

Having thus described our invention, what we claim is—

1. In an extractor for a cork or stopper, an extractor member adapted to be embedded in the body of the cork or stopper having a pull portion extending from the upper part of the cork or stopper, and means embedded in the body of the cork or stopper to prevent the withdrawal of the extractor member from said cork or stopper, the said pull portion of said extractor member being provided with a perforation and a slit, and a loop-shaped finger-piece pivotally arranged in said perforation, substantially as and for the purposes set forth.

2. In an extractor for a cork or stopper, an extractor member adapted to be embedded in the body of the cork or stopper having a pull portion extending from the upper part of the cork or stopper, the said extractor member being provided in its embedded portion with a pin-receiving perforation, and a pin extending laterally through the body of the cork or stopper and into the said pin-receiving perforation, all arranged to prevent the withdrawal of the extractor member from said cork or stopper, the said pull portion of said extractor member being provided with a perforation and a slit, and a loop-shaped finger-piece pivotally arranged in said perforation, substantially as and for the purposes set forth.

3. In an extractor for a cork or stopper, an extractor member adapted to be embedded in the body of the cork or stopper having a pull portion extending from the upper part of the

cork or stopper, means embedded in the body of the cork or stopper to prevent the withdrawal of the extractor member from said cork or stopper, the said pull portion of said extractor member being provided with a perforation and a slit, and a finger-piece consisting, essentially, of a straight bar arranged in the said perforation, ribs on said bar arranged on opposite sides of the said pull portion of the extractor member, and a curved connecting member extending from the ends of the said straight bar, substantially as and for the purposes set forth.

In testimony that we claim the invention set forth above we have hereunto set our hands this 5th day of April, 1904.

JOSEPH D. EFFENBERGER.
ROMIE A. EFFENBERGER.
AUGUSTUS F. EFFENBERGER.

Witnesses:
FREDK. C. FRAENTZEL,
GEO. D. RICHARDS.