No. 760,097. PATENTED MAY 17, 1904.

M. E. BIERSACH.

COMBINED BOTTLE OPENER AND STOPPER.

APPLICATION FILED JULY 17, 1903.

NO MODEL.

Fig. 1.

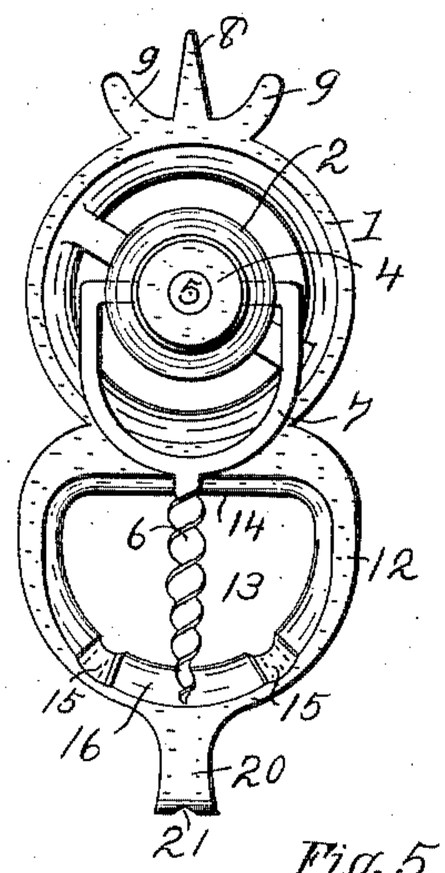


Fig. 2.

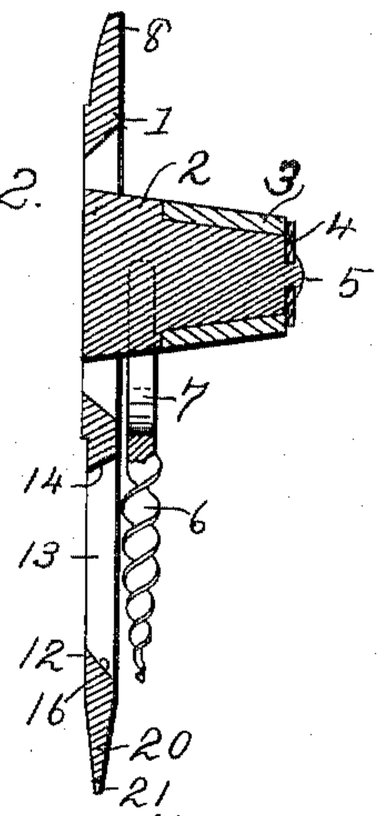


Fig. 3.

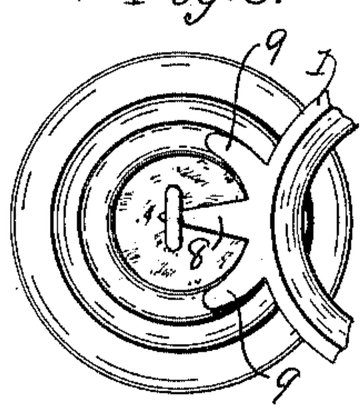


Fig. 5.

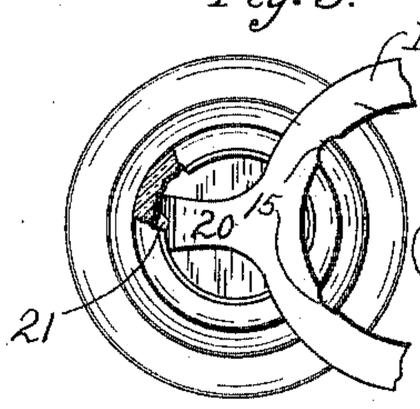


Fig. 7.

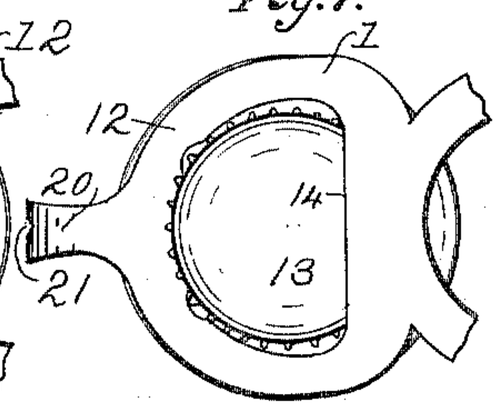


Fig. 4.

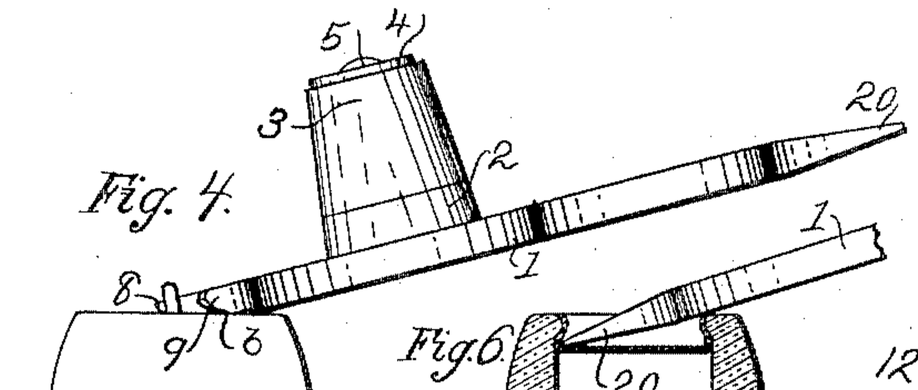


Fig. 6.

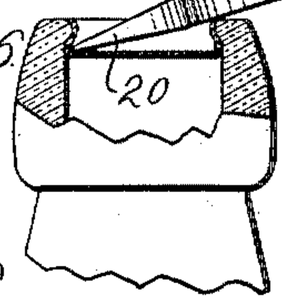


Fig. 8.

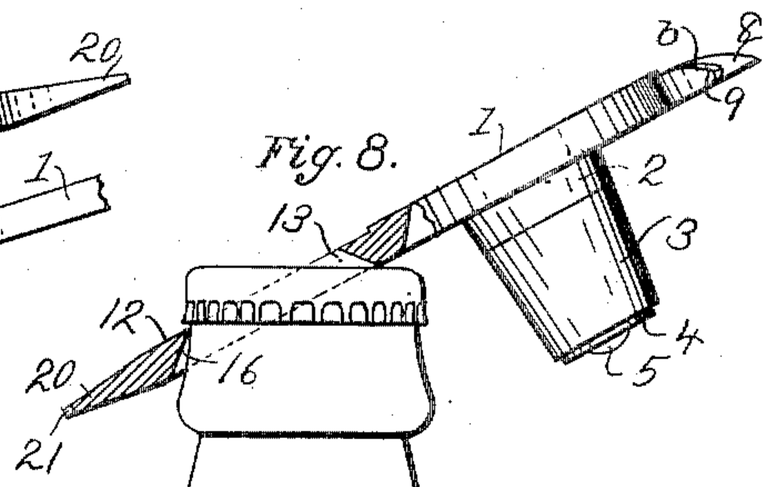
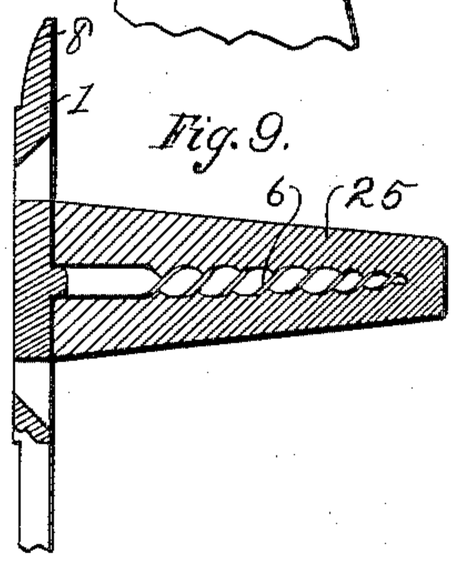


Fig. 9.



WITNESSES:

F. A. Ober.

N. J. Taugher.

INVENTOR.

Max E. Biersach.

BY Erwin & Wheeler

ATTORNEYS

No. 760,097. Patented May 17, 1904.

UNITED STATES PATENT OFFICE.

MAX E. BIERSACH, OF MILWAUKEE, WISCONSIN.

COMBINED BOTTLE OPENER AND STOPPER.

SPECIFICATION forming part of Letters Patent No. 760,097, dated May 17, 1904.

Application filed July 17, 1903. Serial No. 165,975. (No model.)

To all whom it may concern:

Be it known that I, MAX E. BIERSACH, a citizen of the United States, residing at Milwaukee, county of Milwaukee, and State of Wisconsin, have invented new and useful Improvements in a Combined Bottle Opener and Stopper, of which the following is a specification.

My invention relates to improvements in bottle openers and stoppers.

The bottle-closures for which my invention is principally adapted are of three general types, as illustrated in Figures 4, 6, and 8 of the accompanying drawings.

In Fig. 4 a cork A is used, which is provided with a centrally-located upwardly-projecting staple *a*.

In Fig. 6 a bottle is shown, which is provided at its mouth with an inwardly-projecting bead forming an annular shoulder for the retention of a metallic stopper, which is expanded below the shoulder after insertion. The operation of the expander produces crimps in the expanded portion of the stopper, as shown in sectional detail in Fig. 5.

Fig. 8 shows a cap adjusted over an exteriorly-projecting bead formed at the mouth of the bottle, the lower edge of the cap being shrunk by crimping the same inwardly below the bead.

The object of my invention is to provide a form of tool, which may be used indiscriminately on any of the above-mentioned styles of bottle-closures or upon an ordinary cork. Also to provide a form of tool which may be used to close the bottle after the removal of the original cork or closure.

In the following description reference is had to the accompanying drawings, in which—

Fig. 1 is a view of my invention as seen from the under side. Fig. 2 is a side view of the same. Figs. 3 and 4 are detail top and side views, respectively, showing the application of my invention to a stapled cork. Figs. 5 and 6 are detail top and side views illustrating the application of my invention to expanded internal metallic stoppers. Figs. 7 and 8 are views respectively similar to Figs. 5 and 6, but showing the application of the invention to an external metallic cap shrunk into position by crimping its lower edge underneath an exteriorly-projecting bead at the mouth of the bottle.

Like parts are identified by the same reference characters throughout the several views.

A circular disk or plate 1 is provided with a central conical projection 2, the tapered outer end of which is covered by a sheath 3 of rubber or other suitable non-metallic material, the sheath being held in position by an end disk 4, which is secured to the part 2 by a screw or rivet 5, the parts 2, 3, and 4 constituting the cork. An ordinary corkscrew 6 is connected with the part 2 by a pivotal yoke 7, whereby the corkscrew may be swung to a position either at right angles with the disk or parallel therewith. A prong 8 and curved side arms 9 project from one side of the disk and in the plane thereof, as shown in Fig. 1, the prong being adapted to engage the staple of a cork, as shown in Figs. 3 and 4, the side arms 9 being curved in correspondence with the curvature of the mouth of the bottle and also having their lower surfaces rounded, as shown at *b* in Fig. 4, whereby a rocker-bearing is secured upon the bottle, as best shown in Fig. 4.

At the edge of the disk 1 opposite that occupied by the prong 8 a stirrup-shaped yoke 12 is provided, the central opening 13 of which has a straight side at 14 adjacent to the disk 1. The other sides of the central opening are curved substantially in the arc of acircle, but are provided with notches, as shown at 15 in Figs. 1 and 5. The inner edges of the yoke are also beveled, as shown at 16 in Figs. 1 and 8, the smaller diameter of the aperture 13 being at the top of the plate. The yoke 12 as thus constructed is adapted for removing the metallic cap, (shown in Fig. 8,) the stirrup being fitted over the top of the cap, as shown in said figure, with the upper surface of the beveled inner edge 16 of the yoke engaging under the crimped edge of the cap. The notches 15 permit a close engagement of the outer portion of the yoke underneath the cap, these notches being located at the point where the yoke-arms cross crimped portions of the cap when the tool is adjusted, as shown in Fig. 8.

By bearing down upon the upper portion

of the tool the engaged edge of the cap is lifted past the bead at the mouth of the bottle and the cap removed. The outer portion of the yoke 12 is provided with a projecting arm 20, preferably having a tapered upper and lower surface, and a notch 21 in the extremity. When removing stoppers of the type shown in Fig. 6, this arm 20 engages in the expanded portion of the stopper, the notch 21 permitting the end of the tool to pass into the recessed spaces of the crimps, whereby a firm engagement with the stopper is secured.

It will be observed, Fig. 2, that the disk 1, prongs 8, arms 9, yoke 12, and arm 20 are all formed integrally of a single piece of metal and are all in the same plane, whereby the entire tool with the exception of the cork may be stamped integrally from a piece of sheet metal, thus forming a tool adapted for opening any bottle and which will not break or chip the glass of the bottle, the construction of the tool being such as to afford a broad bearing upon the mouth of the bottle in each case.

In Fig. 9 I have shown a modified form of construction. The parts 2, 3, 4, and 5 are omitted, and the shank of the corkscrew secured directly and at right angles to the plate 1 by riveting or otherwise. A cap 25 is formed to serve as a stopper and is arranged with a screw-threaded socket to receive the corkscrew, as shown.

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

1. In a device of the described class, the combination of a plate adapted to serve as a lever; a prong projecting from one edge thereof, and of sufficient length to reach past the center of a bottle-mouth when the edge of the plate is adjusted at the edge of the mouth and forked arms projecting laterally from the base of the prong, one on each side thereof; said arms being curved in arcs corresponding with the curvature of the edge of the bottle at the mouth and positioned to rest thereon, when the prong is engaged at the center of the cork.

2. In a device of the described class, the combination of a plate adapted to serve as a lever; a prong projecting from one edge thereof, and of sufficient length to reach past the center of a bottle-mouth when the edge of the plate is adjusted at the edge of the mouth and forked arms projecting laterally from the base of the prong, one on each side thereof; said arms being curved in arcs corresponding with the curvature of the edge of the bottle at the mouth and positioned to rest thereon, when the prong is engaged at the center of the cork; said arms also having rounded under surfaces *b*.

3. In a device of the described class the combination of a plate adapted to serve as a lever; a prong projecting from one edge thereof; and forked arms projecting laterally from the base of the prong, one on each side thereof; said arms being curved in arcs corresponding with the curvature of the edge of the bottle at the mouth and positioned to rest thereon, when the prong is engaged at the center of the cork; said plate being provided with a projection at its central portion extending at right angles to the plate and adapted to facilitate the manipulation of the levers, and said prong and forked arms being of a length equal to the radius of the bottle-mouth.

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

MAX E. BIERSACH.

Witnesses:
JAS. B. ERWIN,
LEVERETT C. WHEELER.