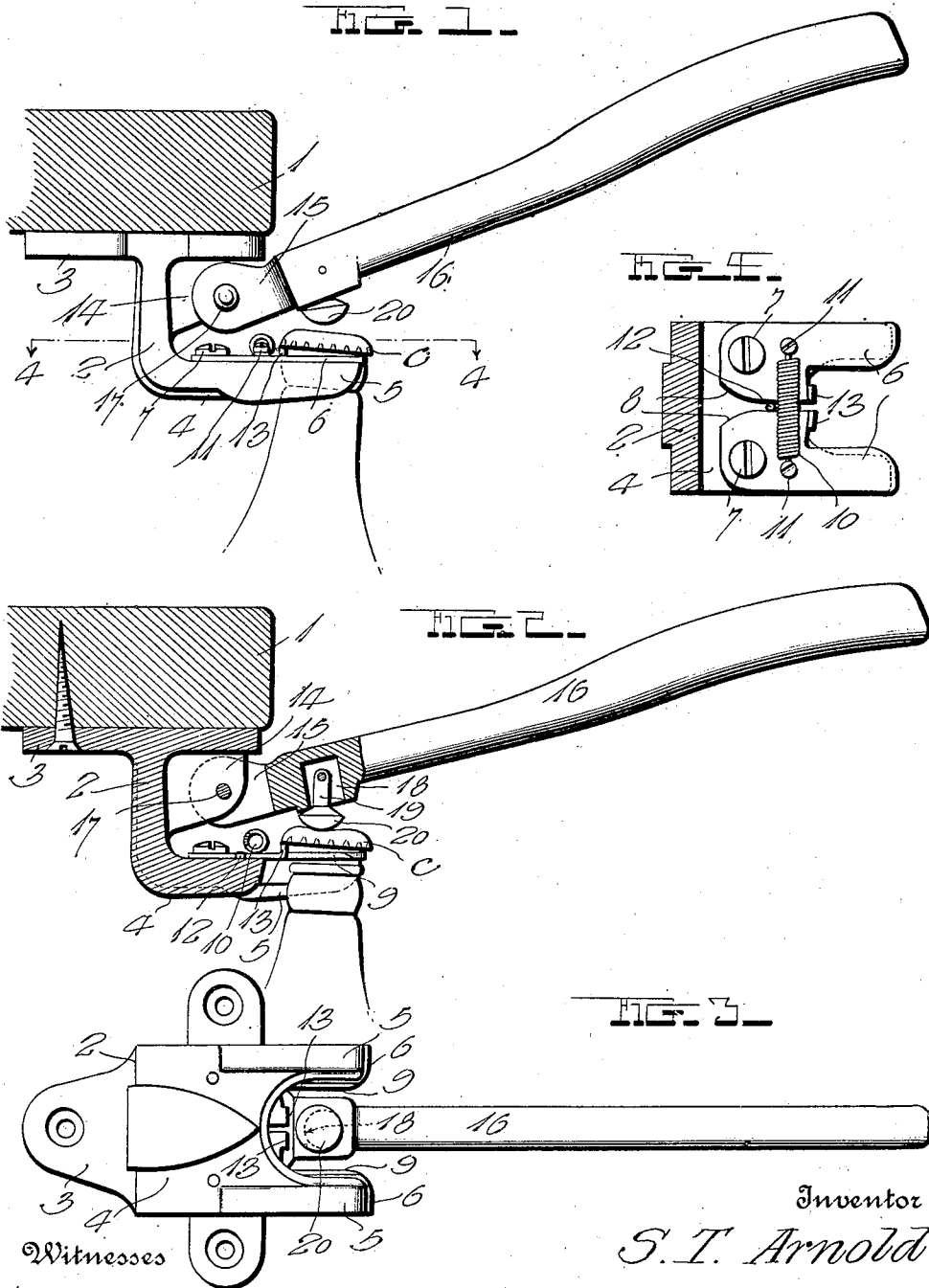


S. T. ARNOLD.
BOTTLE OPENER.

APPLICATION FILED DEC. 11, 1919, RENEWED MAR. 16, 1921.

1,376,994.

Patented May 3, 1921.



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UNITED STATES PATENT OFFICE.

SATTERLEE T. ARNOLD, OF PADUCAH, KENTUCKY.

BOTTLE-OPENER.

1,376,994.

Specification of Letters Patent.

Patented May 3, 1921.

Application filed December 11, 1919, Serial No. 344,103. Renewed March 13, 1921. Serial No. 452,718.

To all whom it may concern:

Be it known that I, SATTERLEE T. ARNOLD, a citizen of the United States, residing at Paducah, in the county of McCracken and State of Kentucky, have invented certain new and useful Improvements in Bottle-Openers; 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.

This invention relates to improvements in bottle cap removers.

The principal object is to provide a simple and practical cap remover which is easily operated and so constructed as to easily and quickly remove crimped caps from bottles without the danger of breaking the bottles.

With the above and other objects in view the invention consists of certain novel features of construction and the combination and arrangement of parts as will be more fully described and claimed.

I attain these objects by constructing a cap remover as illustrated in the accompanying drawing, in which—

Figure 1 is a side elevation of my cap remover about to be operated;

Fig. 2 is a vertical section, showing the position of parts just after the removal of a cap;

Fig. 3 is a bottom plan view of the device; and,

Fig. 4, a section on the line 4—4 of Fig. 1.

Similar numerals of reference designate similar parts throughout the several views.

Reference is now had to the drawings in which the cap remover is shown mounted on a shelf or table 1 and includes a body 2 provided at its upper end with a flat plate 3 which is preferably though not necessarily substantially T-shaped, providing ears in which are formed apertures for receiving therethrough screws or other suitable fastening elements by which the plate is secured to a support. Formed integrally with the lower end of the body 2 is a flat substantially horizontally disposed ledge 4, the outer end of which is substantially U-shaped to provide a bottle neck receiving recess and a pair of parallel spaced fingers 5 whose upper faces are flat to form bearings for a pair of pivoted jaws to be described.

Although a pair of jaws of any preferred shape may be mounted on the ledge, I have shown and prefer using jaws 6, substantially L-shaped, said jaws each having an opening adjacent its rear end through which is passed a screw 7 which is threaded into a suitable socket in the ledge and forms a vertical pivot for the jaw. The jaws are cut away to form curved corners 8 whereby they may be opened and are beveled on their inner adjacent edges at 9 to form edges which will readily engage the lower edge of a bottle cap as illustrated.

Although other suitable means may be employed for retaining the jaws in firm engagement with a bottle neck, I prefer using a coil spring 10 whose extremities are connected to the jaws by means of screws or the like fasteners 11. The action of this spring is to pull the two jaws together and in order that this inward movement may be limited, a stop 12 in the form of a pin or projection on the ledge is provided.

The inner adjacent angular corners of the jaws are provided with short lugs or tongues 13 which are bent vertically upward so as to engage the lower edge of a cap to be removed and give the bottle and cap a slight angle as shown in Fig. 1, to permit proper operation of the device.

The body 2 is provided with a vertically extending lug 14 which is transversely apertured and is received between two apertured ears 15 on the inner end of a lever 16, said apertures being alined to receive a pivot pin 17. The lever is provided in its lower face at a point near its inner end with a recess 18 having a transverse pivot pin upon which is mounted the stem 19 of a plunger having on its lower end an enlarged circular head 20 whose convex lower face is adapted to strike a cap C when being operated.

In removing the cap of the bottle, the neck is forced between the yieldable jaws, the edge 9 taking under the opposite lower edges of the cap and the upstanding tongues 13 are positioned under the edges of said cap. When the lever is depressed the plunger head strikes the cap and expands the cap flange and the bottle is pulled downwardly, removing the cap. It is readily seen that the curved adjacent corners on the front end of the jaws assist in guiding the bottle neck into position.

While I have described a specific structure for the lever and plunger it is understood that any other suitable or preferred type of lever and plunger may be employed with good results.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and in the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the claimed invention.

I claim:

1. A bottle cap remover comprising a support, cap engaging jaws on said support, a lever disposed above said jaws and pivoted to said support, and a depending plunger pivotally mounted on said lever for limited swinging movement and adapted to be forced against the cap to assist in removing the same.

2. A bottle cap remover comprising a support, having a horizontal portion, cap engaging jaws on said support, a lever disposed above the jaws and pivoted to said support, said lever having a recess in its lower face, and a plunger having a stem pivotally mounted in said recess and an enlarged head for engaging and assisting in removing a cap when the lever is pressed downwardly, the wall of said recess limiting the swinging movement of said stem.

3. A bottle cap remover comprising an attaching bracket having a vertical body, a flat apertured plate on the upper end of said body for fastening the bracket to a support and a horizontal ledge on the lower end of said body being substantially U-shaped at its outer end, a pair of vertical pivots on said ledge, a pair of jaws mounted on said pivots and movable horizontally toward and from each other to take under the opposite lower edges of a cap, a lever disposed above the jaws and pivotally mounted on said body and means on said lever to engage and assist in removing said cap.

4. A bottle cap remover comprising a support having a horizontal portion, a pair of pivots on said portion, a pair of jaws

mounted on said pivots and movable horizontally toward and from each other to take under the opposite lower edges of a cap, means for moving the jaws toward each other, a stop on said portion to limit the inward movement of said jaws, a lever disposed above the jaws and pivoted to the support and means on said lever to engage and assist in removing the cap when the lever is depressed.

5. A bottle cap remover comprising a support having a horizontal portion, said portion being substantially U-shaped on one edge, a pair of pivots on said portion, a pair of substantially L-shaped jaws mounted on said pivots and movable horizontally toward and from each other to take under the opposite lower edges of a cap, a pair of upwardly directed tongues on the inner adjacent ends of said jaws to engage the lower edge of a cap, means for retaining the jaws in firm engagement with a bottle neck and means on the lever to strike the cap and assist in removing the same.

6. A bottle cap remover comprising an attaching bracket having a vertical body, a flat apertured plate on the upper end of said body for fastening the bracket to a support and a horizontal ledge on the lower end of said body being substantially U-shaped at its outer end, a pair of vertical pivots on said ledge, an apertured lug on said body, a pair of substantially L-shaped jaws mounted on said pivots and movable toward and from each other to take under the opposite lower edges of a cap, upstanding tongues on the inner adjacent ends of said jaws to engage the lower edge of a cap, a coil spring connecting said jaws to retain them in firm engagement with a bottle neck, a stop on said ledge to limit the inward movement of said jaws, a lever disposed above the jaws and pivoted to said lug, said lever having a recess in its lower face, and a plunger having a stem pivotally mounted in said recess and an enlarged head for engaging and assisting in removing a cap when the lever is depressed, the wall of said recess limiting the swinging movement of said stem.

In testimony whereof I have hereunto set my hand.

SATTERLEE T. ARNOLD.