Sept. 2, 1924. 1,507,339

J. F. CRYER

BOTTLE OPENER

Filed April 4, 1922

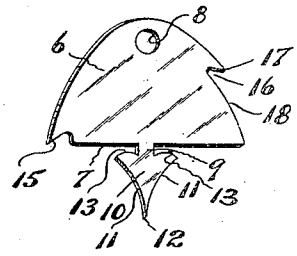


Fig. 1

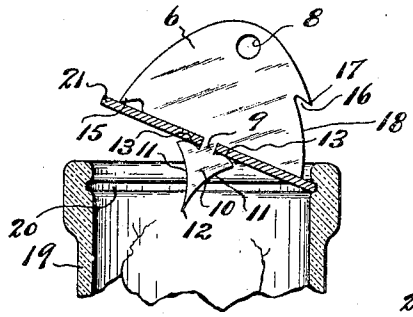


Fig. 2

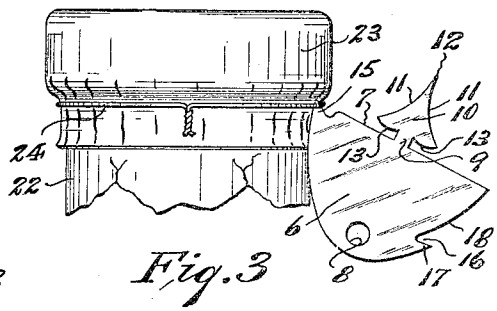


Fig. 3

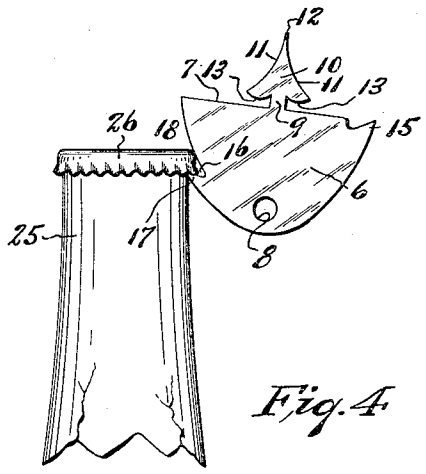


Fig. 4

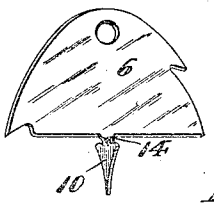


Fig. 5

John Frederick Cryer

INVENTOR.

Patented Sept. 2, 1924. 1,507,339

UNITED STATES PATENT OFFICE.

JOHN FREDERICK CRYER, OF MOUNT VERNON, NEW YORK.

BOTTLE OPENER.

Application filed April 4, 1922. Serial No. 549,496.

To all whom it may concern:

Be it known that I, JOHN FREDERICK CRYER, a citizen of the United States, residing at 322 South Seventh Avenue, in the city of Mount Vernon, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Bottle Openers; and I 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.

This invention relates to an improved construction of bottle opening device; and, more particularly, to a simple instrument for removing caps and stoppers from the mouths of bottles normally closed thereby.

The invention has for its principal object to provide a very simple and cheap one-piece sheet metal device which is provided in connection with its periphery with various elements respectively adapted to perform certain operations in connection with the removal of bottle closures, e. g. the removal and replacement of paper closure disks from the mouths of milk bottles and similar containers, the removal of binding wires which retain paper covers around milk bottle tops and similar containers, and the removal of crimped metallic sealing caps from bottles. It is also an object of this invention to provide a bottle opening device of the character above specified, which may be easily and quickly manufactured by stamping the same out of sheet metal and which is of a novel one-piece construction so that all necessity for assembling operations is eliminated and consequently a serviceable and useful device may be produced with a minimum expenditure of labor and material, and which by reason of its consequent cheapness may be successfully marketed at an extremely low price, or can be successfully employed as an advertising novelty.

Other objects of this invention, not at this time more particularly enumerated, will be clearly understood from the following detailed description of the same.

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

Fig. 1 is a perspective view of the novel bottle opening device made according to and embodying the principles of the invention; Fig. 2 is a face view of the same showing the manner of applying the device to the paper closure disc of a milk bottle or the like and operating the same to remove said closure disc, the bottle and closure disc being shown in vertical section; Fig. 3 is a face view of the device showing the manner of applying the same to a binding wire to break the same or stretch it for the release of a paper cover from a bottle top; Fig. 4 is a face view of the device showing the manner of applying the same to a crimped metallic bottle seal to effect the separation or removal of the latter from a bottle; Fig. 5 is a perspective view of a slightly modified form of the novel bottle opening device made according to the principle of the invention.

Referring now to the said drawings, the reference character 6 indicates the main body of the device which is preferably stamped out of sheet metal so as to possess a substantially semi-circular or semi-elliptical shape having a straight transverse lower edge 7. Said body 6 may be provided with the opening or perforation 8 adjacent to its upper curved edge, whereby the device may be suspended or hung upon a nail or hook when not in use. Extending downwardly from said lower edge 7 at a point intermediate the sides of said body 6, and so as to form preferably an integral part of said body 6, is a combined piercing and gripping member comprising a neck or shank 9 terminating in a piercing blade 10 having downwardly converging side edges 11, to form at its free extremity a sharpened spur or piercing point 12. The upper portions of said blade 10 extend laterally outward at each side of said neck or shank 9 and the upper marginal portions of the same are shaped to provide upwardly bowed or curved arcuate gripping elements 13, which are spaced downwardly from the edge 7, of the main body 6.

Preferably the combined piercing and gripping member thus formed is disposed to present its flat faces in the plane of the faces of said body 6 (as shown in Figs. 1 to 4 inclusive) but if desired the neck or shank 9 may be twisted as shown at 14 in Fig. 5, to dispose the flat faces of said combined piercing and gripping member in a plane at right angles to the plane of said body 6.

Formed in said straight edge 7, at one side of the body 6, and at the juncture of that side of said body with said straight edge 7, is a sharp spur or prying tongue 15.

Formed in connection with a side edge

of said body 6 intermediate its upper curved top and its straight bottom edge 7 is an indented portion 16 bounded on one side by a hook element or grapple 17, which in connection with the opposed side edge-portion 18 of the body 6, serves to operatively engage a crimped metallic bottle seal to exert a lifting pry thereon when separating the seal from its operative closed engagement with the bottle mouth.

As is well known it is the usual practice to close the mouths of milk bottles and similar containers by means of a paper or card-board closure disc, the margins of which are sprung into an annular seat interiorly disposed within the neck of the bottle adjacent to its mouth.

Referring to Fig. 2 I have shown a portion of a milk bottle 19 having in its mouth the internal annular seat 20 with which a paper or card-board closure disc 21 may be engaged to close the bottle mouth. In detaching the closure disc 21 from the bottle mouth the method most frequently resorted to is to dig out the same with a sharp instrument of some kind—such as a fork, knife point or the like, with the result that the closure disc is frequently destroyed so that it cannot be satisfactorily used to close the bottle again, often pouring out a portion of the contents, and furthermore by such method of separation the closure cap is often so suddenly sprung out or released from the annular seat 20, that the contents of the bottle is splashed out or spilled to the annoyance and inconvenience of the operator. The present invention is adapted to provide, among other purposes, a means for easily and quickly removing the paper closure disc without destroying the same for future use, and without likelihood of spilling or splashing the contents out of the bottle during the operation.

In utilizing this invention for such purpose, the body 6 is grasped between the thumb and fingers with the spur or piercing point 12 downwardly directed towards the approximate center of the closure disc to be removed. The operator now thrusts downwardly with the device thereby causing the spur or piercing point to penetrate through the material of the closure disc until the blade 10 passes entirely therethrough and the straight edge 7 is stopped against the upper side of said closure disc, whereupon the operator gives the device a quarter turn thus positioning the blade 10 transversely across the slot formed by its passage through the closure disc, while at the same time causing the arcuate gripping elements 13 to engage the under side of the closure disc respectively on opposite sides of said slot. The device is now locked to the closure disc so that the operator by a proper lateral swinging motion may up-tilt the closure disc from one edge (as illustrated in Fig. 2) and thereby cause the same to easily spring out of the seat 20 for complete separation from the bottle or removal from the bottle of its contents. Inasmuch as the closure disc is locked to the device it follows that the latter serves as a handle or finger piece by means of which said closure disc may be manipulated to return the same to closed relation to the said bottle, should it be so desired to do.

In Fig. 3 I have illustrated a bottle top 22, covered by a paper wrapping or cover 23, bound in place by an encircling retaining wire 24. In view of the fact that said wire 24 being normally under the shoulder of the lip of the bottle top, is not readily accessible, difficulty is experienced in detaching the same. In my novel device I have provided at a corner thereof a prying spur or tongue 15, which provides a very convenient means for insertion under such a wire for the purpose of prying the same loose or breaking the same, when manipulated as shown in Fig. 3.

In Fig. 4 I have illustrated a bottle 25 closed by the well known crimped metallic seal 26. In connection with my novel device I have provided the hook or grapple 17 for insertion under the crimped edge of said seal so that by bringing the edge portion 18 against the top edge of the seal a gripping of the seal may be attained whereby the same may be pried loose from closing relation to the bottle.

From the above description it will be apparent that I have provided in my present invention an exceedingly simple instrument adapted to efficiently serve various functions relative to the removal of closures from bottles, jars, etc., and one which is easily kept clean and sanitary. I am aware that some changes may be made in the arrangement and detail construction of the several parts of the device without departing from the scope of the invention as set forth in the foregoing specification and as defined in the appended claims. Hence I do not limit my invention to the exact arrangement and detail construction of said parts as above described or as shown in the accompanying drawings.

I claim:—

1. An article for use as a bottle opener, comprising a partially circular body with a straight edge and having a cutting blade protruding from the central part of its straight edge, said blade formed with a neck portion and an approximately dart-shaped head having arcuate shoulders in spaced proximity to the straight edge of the body, said body having at one end of its straight edge a notch providing a prying spur at the juncture of said straight edge with the curved edge of the

body for removing a wire on the neck of the bottle and the body also having on its curved edge a protruding hook-shaped element for detaching caps from bottles, all cut and formed from a flat sheet of metal.

2. A combination tool adapted to be used in removing various kinds of bottle closures comprising a body having a straight edge, a cutting blade, a neck portion connecting said cutting blade and straight edge, said blade being shaped approximately like a dart head, said body having at one end of its straight edge a notch comprising a prying spur for removing wire from the neck of a bottle, a hook-shaped protruding element carried by said body on the opposite side thereof from the prying spur and adapted to detach a crimped cap from a bottle, the entire tool being cut and formed from a flat sheet of metal.

In testimony whereof I affix my signature in the presence of two witnesses this third day of April, nineteen hundred and twenty-two.

JOHN FREDERICK CRYER.

Witnesses:

RAE M. WALKER,

WILSON E. TIPPLE.