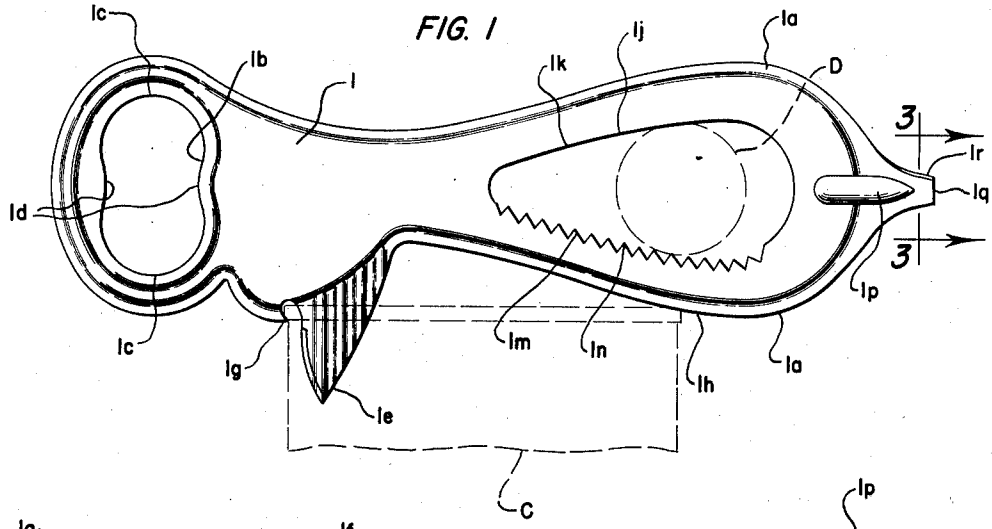
Sept. 18, 1951 E. E. CULLEN 2,568,612

COMBINATION CONTAINER OPENER

Filed Jan. 31, 1948

FIG. 1



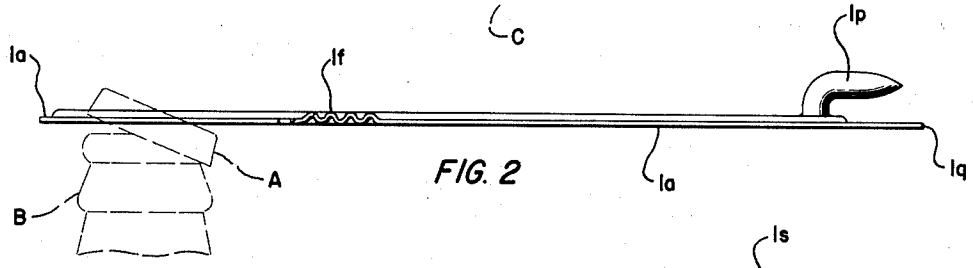


FIG. 2

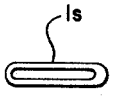


FIG. 5

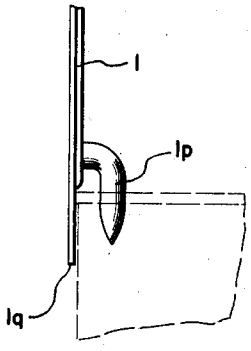


FIG. 4



FIG. 3



FIG. 6

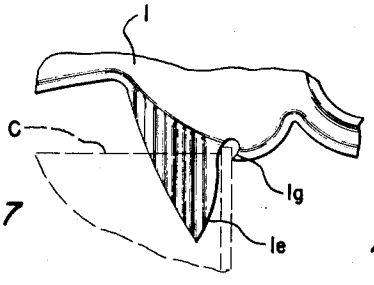


FIG. 7

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Patented Sept. 18, 1951 2,568,612

UNITED STATES PATENT OFFICE

2,568,612

COMBINATION CONTAINER OPENER

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3 Claims. (Cl. 30—16)

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My invention relates to a combination container opener, more particularly for use in performing the great variety of operations in opening various containers, and the objects of my invention are:

First, to provide a container opener of this class having a hook adapted to engage a can rim adjacent to a perforating blade connected to a handle which provides a stop against the opposite edge of the can rim when the perforating blade is projected into the can;

Second, to provide a combination container opener of this class in which the can rim engaging portion may be engaged with the top of the can rim and the perforating blade adjacent thereto may be used to perforate the side of the can adjacent the rim in opposed relationship to the perforation of the end of the can so that all of the liquid contents of the can may be readily removed;

Third, to provide a combination container opener of this class having means in connection therewith for readily opening screw cap enclosures from various containers;

Fourth, to provide a combination container opener of this class having a novel milk can perforator provided with the parallel guide engageable with the outer side of the can for insuring perforation of the can adjacent to the outer edge thereof so that all of the contents may be drained therefrom;

Fifth, to provide a combination container opener of this class which is readily adapted to remove crimp cap enclosures from various bottles such as soft drink bottles or the like;

Sixth, to provide a combination container opener of this class having a screw driver and knife edge portion for performing various operations including the removal of plastic covers from liquor bottles or the like;

Seventh, to provide a combination container opener of this class having an opening therein consisting of two arcuate portions, the axes of which are spaced on a common center line providing an oblong opening having middle portions closer together than the diameter of the arcuate portions for positively engaging opposite edges of the conventional crimp cap enclosure whereby the same may be readily and easily removed by a simple lever action, and

Eighth, to provide a combination container opener of this class which is very simple and economical in construction, efficient in operation and which will not readily deteriorate or get out of order.

With these and other objects in view, as will appear hereinafter, my invention consists of certain novel features of construction, combination and arrangement of parts and portions as will be hereinafter described in detail and particularly set forth in the appended claims, reference being had to the accompanying drawing and to the characters of reference thereon forming a part of this application, in which:

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Figure 1 is a side elevational view of my combination container opener shown in operating position illustrating by dash lines a can being perforated thereby; Fig. 2 is a edge view of my combination container opener shown in operating position illustrating by dash lines the neck of a bottle having a crimp cap removed therefrom by my combination container opener; Fig. 3 is an enlarged sectional view taken from the line 3—3 of Fig. 1; Fig. 4 is a fragmentary edge elevational view of my combination container opener shown in the operation of perforating a milk can and the like illustrated by dash lines; Fig. 5 is an end view of the perforating blade sheath of my combination container opener; Fig. 6 is a side elevational view thereof and Fig. 7 is a fragmentary view similar to Fig. 1 showing the main perforator blade perforating the side of the can substantially 90° to the perforating operation as shown in Fig. 1 of the drawing being performed in the end of the can.

Similar characters of reference refer to similar parts and portions throughout the several views of the drawing.

My combination container opener is formed of a plate 1 having offset formed edge portions 1*a* substantially surrounding the same for added strength and stiffness.

In one end of my container opener I have provided an opening 1*b* for engagement of conventional crimp caps such as those found on soft drink bottles. This opening, 1*b* consists of two arcuate cut-out portions, 1*b* having their axes spaced on a common center line providing inwardly extending lips 1*d* closer together than the diameter of the arcuate cut-out portion of 1*c*. These lips 1*d* are engageable with opposite edges of the conventional crimp cap as shown in Fig. 2 of the drawing, the crimp cap being illustrated by dash lines *a* and removable from the bottle neck illustrated by dash lines B. In addition to the opening 1*b* I have provided a perforating blade 1*e* which is formed of corrugated portions 1*f* for broadening the opening cut by the blade 1*e*. Adjacent to the blade 1*e* is a hook 1*g* engageable with the rims of a conventional can either at the outer side or at the top for perforating the top or the outer side respectively as shown in Figs. 1 and 7 of the drawings. It will be here noted that when the perforating operation on the end of the can is being performed as shown in Fig. 1 of the drawing, the rearwardly extending portion 1*h* forming the handle of the container opener engages the rim of the can diametrically opposed to the hook 1*g* for limiting the perforating operation of the blade 1*e* in the end of the

can as illustrated by dash lines in Fig. 1 of the drawings. The opening 1*j* is provided with converging portions 1*k* and 1*m* intermediate with which the conventional screw cap illustrated by dash lines *d* may be engaged. The converging portion 1*m* is provided with buttress teeth 1*n* which provide frictional engagement for the screw cap *d*. In the opposite end of my combination container opener from the opening 1*b* I have provided a milk can perforating spike 1*p* having a sharp pointed end, the axis of this spike 1*p* is parallel and spaced from the plane of the plate 1 which extends slightly beyond the pointed end of the spike 1*p* and terminates in a screw driver portion 1*q* which is sharpened at its one edge 1*r* or the cutting of plastic seals on liquor bottles or the like. For the perforating blade 1*e* I have provided a hollow sheath 1*s* which substantially conforms to the configuration of the blade 1*e* and covers the same for preventing persons from becoming injured on the pointed end of said blade 1*e*.

The operation of my combination container opener is substantially as follows:

When it is desired to remove a crimp cup illustrated by dash lines *a* in Fig. 2 of the drawing from a bottle neck illustrated by dash line *b* the lip 1*d* is placed under the lower edge of the cap *a* at one side thereof, while the lip 1*d* adjacent to the end of the plate 1 is placed under the edge of the crimp cap at the lower side thereof while the opposite lip 1*d* is placed over the upper side of the crimp cap A in diametrical opposition so that the crimp cap *a* may be readily pried from the bottle neck *b*. When it is desired to perforate the end of the can C as shown in Fig. 1 of the drawing the hook 1*g* is engaged with the rim of the can at its end at the outer side thereof. Then the perforating blade 1*e* is forced downwardly through the top of the can or the end thereof by pressure on the handle portion 1*h* until that portion 1*h* engages the rim of the can as shown in Fig. 1 of the drawing limiting the downward perforating operation. When it is desired to drain all of the contents from the can a second perforation may be made adjacent to the first perforation and this second perforation may be made in the side of the can as shown by dash lines *c* in Fig. 7 of the drawing so that the hook portion 1*g* may be engaged at the rim of the can adjacent to the end thereof and the perforating blade 1*e* may be forced into the side of the can so that two perforations may be extended into close proximity with the rim of the can for draining all of the contents out of the interior of the can at one end thereof.

In the removal of screw caps from bottles or the like the screw cap D as indicated by dash lines in Fig. 1 of the drawing is forced into the converging portions 1*k* and 1*m* and is frictionally engaged by the buttress teeth 1*n* on the converging portion 1*m*. It will be noted that the counter rotation of the cap D may be accomplished by turning the plate 1 over or inverting the same as desired in accordance with the direction required to tighten or remove the screw cap D.

The milk can perforating spike 1*r* is used in space parallel relationship to the screw driver portion 1*q* which forms a spacing fence for the spike 1*r* so that the hole formed in the top of the milk can is properly positioned adjacent to the outer perimeter rim of the can so that milk may be poured therefrom and substantially removed from the can without undue loss therein. It will

be here noted that the fence 1*q* steadies the operation of the spike 1*r* and permits the operator to conditionally guide the spike 1*r* due to the projection of the screw driver portion 1*q* beyond the end of the spike 1*r* as shown in Figs. 2 and 4 of the drawing. This screw driver portion 1*r* acting as a spike for perforating milk cans may be employed for making small holes in other cans as desired and the screw driver portion 1*q* operating as a fence for the spike 1*r* may also be employed as a knife for the removal of plastic seals on liquor bottles or the like by using the sharp portion 1*r* for cutting. The sheath 1*s* is made of any suitable material as desired, preferably soft plastic or the like and is positioned over the perforating blade 1*e* when not in use for the protection of the operator when using other elements of my combination container opener.

Though I have shown and described a particular construction, combination and arrangement of parts and portions, I do not wish to be limited to this particular construction, combination and arrangement, but desire to include in the scope of my invention the construction, combination and arrangement substantially as set forth in the appended claims.

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

1. In a combination container opener of the class described, a plate having a hook portion adapted to engage the rim of a tin can container, a corrugated perforating blade adjacent to said hook adapted to be projected into said tin can container, a portion of said plate engageable with said container for limiting the corrugated perforating penetration of said perforating blade.

2. In a combination container opener of the class described, a plate having a hook portion adapted to engage the rim of a tin can container, a corrugated perforating blade adjacent to said hook adapted to be projected into said tin can container, a portion of said plate engageable with said container for limiting the perforating penetration of said perforating blade, said hook portion being adapted to engage the rim of the can at the side or the top thereof for perforating the top or the side of the can adjacent to said rim respectively.

3. In a combination container opener of the class described, a plate having a hook portion adapted to engage the rim of a tin can container, a corrugated perforating blade adjacent to said hook adapted to be projected into said tin can container, a portion of said plate engageable with said container for limiting the perforating penetration of said perforating blade, the longitudinal disposition of the corrugated portion of said blade extending toward the point thereof.

ERNEST E. CULLEN.

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