

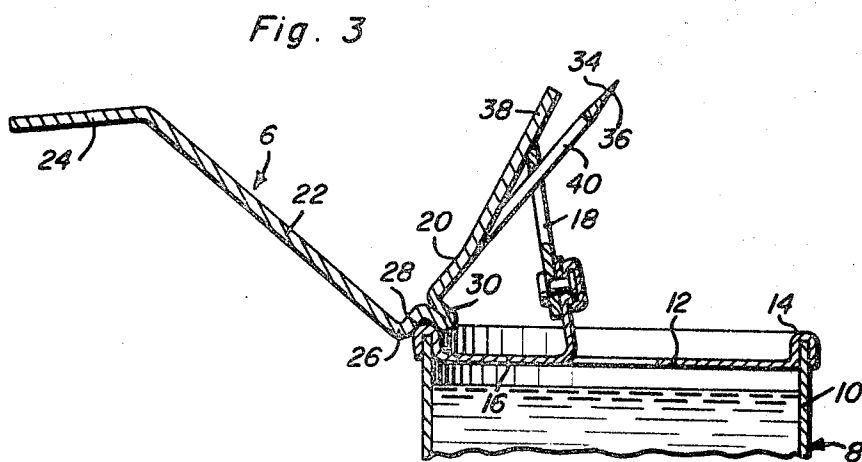
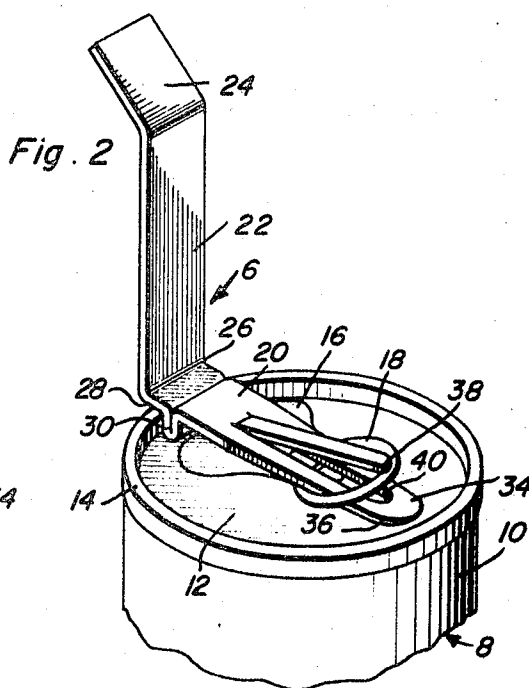
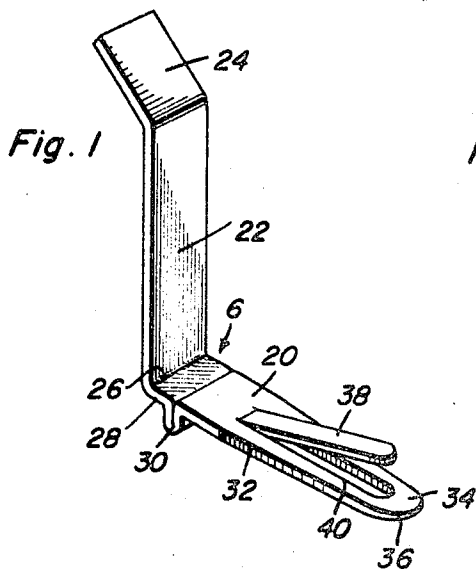
Aug. 12, 1969

V. R. DYER

3,460,411

TAB TOP CAN OPENER

Filed Sept. 28, 1967



Virgil R. Dyer

INVENTOR.

BY *Alfred A. Olson*
and Harvey E. Jacobson
Attorneys

1

2

3,460,411

TAB TOP CAN OPENER

Virgil R. Dyer, R.F.D. 2, Arkansas City, Kans. 67005

Filed Sept. 28, 1967, Ser. No. 671,250

Int. Cl. B67b 7/00

U.S. Cl. 81—3.34

5 Claims

ABSTRACT OF THE DISCLOSURE

A simple one-piece L-shaped hand tool for repeated use and having integral self-contained means for releasably engaging the lifting ring of a can top opening tab. One limb provides a lever, has a piloting tip and a finger to catch hold of the ring and lift it simultaneously with the tab. The other limb provides a handle. The lever adjacent the junctional heel-like portion has a fulcruming, position setting bead abutting rib. In use, engage the lever and finger, set the rib against the bead, and pull down on the handle.

This invention relates to certain new and useful improvements in a one-piece hand actuated can top opening tool which is designed and adapted for repeated use and is unique in that it lends itself to use when called upon to dislodge a tab of the type which is equipped with an attached lifting and tab pulling ring.

The idea of using a special purpose tool for lifting and ripping out a tab-type opener such as is built in the top of beer and soft drink cans is old as shown, for example, in the patent to Oblander 3,235,122. Persons conversant with this field of endeavor and general background are aware of the above and also the fact that certain can manufacturers have successfully produced opening tabs which are yanked free by way of a grippable finger ring. Those who use ring-tab cans, particularly parents and their youngsters, are likewise aware that the can opening step can be and frequently is fraught with bothersome, perplexing, hand pinching, and cutting difficulties. The problem thus posed is capable of solution by employing a hand actuable tool. Accordingly, the objective herein achieved pertains to a simple, practical, safe-to-use tool which functions properly and protects the hand of the user.

Briefly, the tool herein shown and described is not only of one-piece form, it is preferably L-shaped in edge elevation. More particularly, this tool is characterized by a first limb constituting a ring engaging lever, and a companion second limb which provides an easy-to-use actuating and tilting handle for the lever. The free leading end of the lever is of a size and shape to provide a piloting tip. The opposite or rearward end portion of the lever has a heel-like positioning surface and coacting depending bead engaging rib which conjointly construed provides seating, retaining and fulcruming means. After using the tool by trial and error a user can readily learn how to use it expeditiously and safely.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIG. 1 is a view in perspective of the hand tool in the form in which it is expressly designed and constructed to serve as a tab top can opener.

FIG. 2 is a view also in perspective showing the same tool and manner in which it is applied to the top of the can and the components of the lever portion are initially engaged with the liftable finger ring.

FIG. 3 is a view with parts in section showing the manner in which the tool is fulcrumed and tilted and also the

manner in which the ring and tab move as a unit to can top opening position.

The improved tool is denoted, generally speaking, by the numeral 6. The can, which may be any beverage can for beer, soft drinks and the like is denoted by the numeral 8 and embodies the usual cylindrical body portion 10 and disk-like top 12 encircled by an upstanding rim or bead 14. This is the type of can top which has a built-in or integral opening tab 16, more particularly a tab whose initially liftable end is provided with an attached finger ring 18. This is a type of can which is currently on the market.

The invention has to do with the one-piece tool which is formed from a length of flat faced metal and which is generally L-shaped in edge elevation. The first limb is denoted by the numeral 20 and constitutes an engaging and lifting lever for the ring 18. The second limb 22 is at an appropriate right angle and provides an appropriate actuating handle. The upper end of the handle may be offset at an oblique angle as at 24 to provide a thumbpiece to assist in pressing the handle from the erect position shown in FIG. 2 to the tilted tab top opening position shown in section in FIG. 3. The junctional bend or bent portion between the adjacent end portions of the limbs is denoted at 26. That part of the lever which is adjacent the bend or bent portion and which is denoted at 28 provides a tool positioning and fulcruming heel or heel portion and is cooperable with the transverse bent portion 30 which provides a limit stop and also a fulcruming abutment. The heel-like surface 28 functions in conjunction with the transverse rib 30 to provide tool positioning and fulcruming means. The major portion of the lever is gradually decreased in width as at 32. This gradual decrease in width cooperates with the gradual decrease in thickness of the leading end portion 34. By thus gradually thinning and bevelling the end portion as at 36 and rounding the terminal a piloting and guiding tip is thus provided. That portion of the lever between the tip and fulcruming means is provided with a struck-out tongue 38 leaving a slot as at 40. This tongue is described here as a finger and it will be noted that it is at the approximate inclined or oblique angle shown, whereby to assist in moving the lifting ring 18 from the initial position shown in FIG. 2 to the final ripped out position shown in FIG. 3.

The construction of the tool 6 and its coacting lever 20 and handle 22 is clearly brought out in FIG. 1. The proposed manner in which the tool is applied and used is shown in FIG. 2. In this showing it will be evident that the heel-like positioning surface 28 rests atop the edge of the bead while the abutment or rib 30 rests against the inner periphery of the bead thus adapting the same to achieve the tilting and fulcruming result shown. The rounded tip, 34 is passed through the opening in the ring and the ring is then retentively positioned and held in a somewhat clenched state between the finger and lever when the handle 22 is pushed downwardly to assume the ring lifting and tab opening position shown in FIG. 3.

It will be evident that with the finger equipped lever the component parts cooperate in properly catching hold of the ring and retaining the ring in the lifting and tab opening position shown in FIG. 3 so as to keep it from flipping when the tab separates completely from the top of the can. It follows that a tool constructed in accordance with the one herein shown and described aptly accomplishes the improved end result desired. Accordingly, a more extended description is deemed to be unnecessary.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and ac-

3

cordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

What is claimed as new is as follows:

1. For use when called upon to open a built-in can top tab equipped with a self-contained lifting ring: an improved one-piece hand tool substantially L-shaped in edge elevation and embodying a first limb constituting a ring engaging and lifting lever, and a second limb constituting an actuating handle for said lever, said first limb having a terminal leading end designed and adapted to be aligned with, passed through, and operatively but releasably engaged with said ring, the end portion of said lever which is adjacent said second limb having tool positioning and fulcruming means which when in use is adapted to cooperate with said can top and the usual rim marginally encompassing said top, said tool positioning and fulcruming means embodying a depending transverse rib, said rib being spaced from a heel-like junctional surface portion existing between the contiguous bend-connected end portions of said lever and handle, respectively, said rib and heel-like surface portion acting conjointly and progressively in a manner to first lift the ring and then forcibly rip and dislodge the tab.

2. The tool defined in and according to claim 1, and wherein the leading end of said lever is of a width less than the inside diameter of said ring, is gradually narrowed in width in a direction toward said leading end, is decreased in thickness, and is thus bevelled to provide a lever piloting tip.

3. The tool defined in and according to claim 2, and wherein that portion of the lever between said piloting tip and said positioning and fulcruming means has a struck out oblique angled finger, said finger coacting with an adjacent surface of the lever in a manner that the ring can be guidingly and temporarily lodged between the lever and finger during the ring and tab pulling steps and can be readily freed for disposal at will in a waste container.

4. For use when called upon to open a built-in can top tab equipped with a self-contained lifting ring: an improved one-piece hand tool capable of repeated use,

4

said tool being substantially L-shaped in edge elevation and embodying a first limb constituting a ring engaging and lifting lever, and a second limb constituting an actuating handle for said lever, said first limb having a free leading end which is gradually decreased in width and thickness and is rounded to provide a lever guiding and piloting tip, a portion of said first limb which is spaced from the bent portion between the contiguous end portions of the lever and handle, respectively, being bent upon itself to define (1) a depending tool positioning limit stop rib adapted to abut the usual bead encircling the can top and (2) a flat heel-like surface portion, said rib and surface portion defining fulcruming means, that portion of the lever between said piloting tip and said positioning and fulcruming means having a struck out oblique angled finger, said finger coacting with an adjacent surface of the lever in a manner that the ring can be guidingly and temporarily lodged between the lever and finger during the ring and tab pulling steps and can be readily freed for disposal at will in a waste container.

5. The hand tool defined in and according to claim 4 and wherein the upper end of said second limb is free and is laterally offset at an oblique angle to provide a thumb-piece, said finger having a free end which is rounded and is spaced cooperatively from the free rounded end of said first limb.

References Cited

UNITED STATES PATENTS

725,277	4/1903	Newell	81—3.36
1,359,777	11/1920	Wright	254—28
2,160,430	5/1939	Bukolt	220—47

FOREIGN PATENTS

935,800	9/1963	Great Britain.
455,940	2/1927	Germany.

ROBERT C. RIORDON, Primary Examiner

R. V. PARKER, JR., Assistant Examiner