Aug. 25, 1953 F. B. URBANO 2,649,989

COMBINATION CAN OPENER AND CLOSURE

Filed Jan. 23, 1951

Fig. 1.

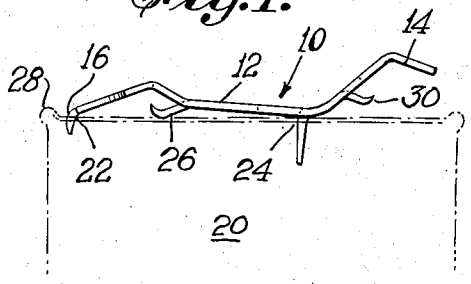


Fig. 2.

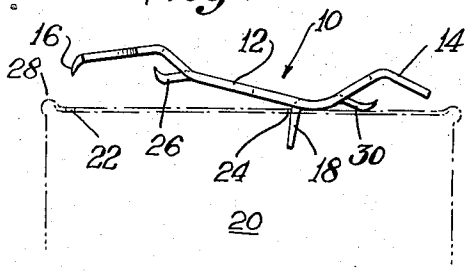


Fig. 3.

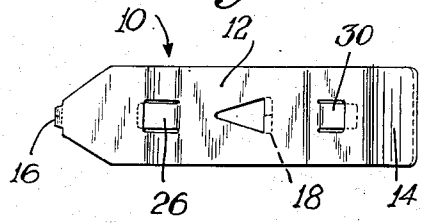


Fig. 4.

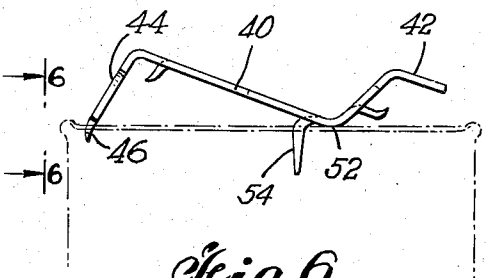


Fig. 5.

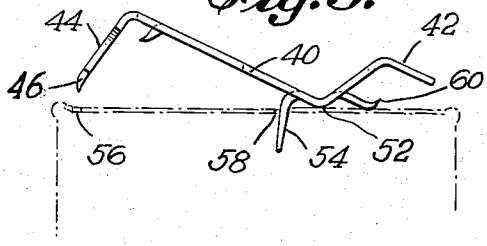
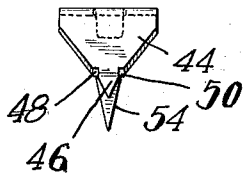


Fig. 6.



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Patented Aug. 25, 1953

2,649,989

UNITED STATES PATENT OFFICE

2,649,989

COMBINATION CAN OPENER AND CLOSURE

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Application January 23, 1951, Serial No. 207,356

1 Claim. (Cl. 220—51)

1

This invention relates to a combination tool which is adapted to perform the following functions:

(*a*) It opens beer cans, fruit juice cans and the like by puncturing a single hole in the top of the can which serves both as a pouring spout and as an air hole.

(*b*) It opens evaporated and condensed milk cans and other liquid food containing cans by puncturing two holes in the top of the can, one serving as a pouring spout and the other serving as an air hole.

(*c*) It closes off and seals the two last mentioned holes to protect the unused contents of the can, thereby serving as the very opposite of a can opener, namely, a can closure.

(*d*) It serves as a hinged cover or lid to convert the can to a pitcher. Thumb or finger pressure will tilt it to open position, thereby completely opening the spout hole and partly opening the air hole. When released, it will drop to closed position, thereby completely closing off both holes.

(*e*) It is adapted to remove crown caps from soda water and beer bottles and the like.

It is accordingly the principal object of this invention to provide a tool which combines all of the above mentioned features and it is a further object of this invention to provide all of these features in a tool of one-piece construction. The tool which is herein described and claimed may be stamped out of a single bar or strip of suitable material, such as steel suitable for hardening. The tool is consequently well adapted for low cost, mass production purposes so that it may be placed within the reach of every person requiring a tool of this general or analogous character. Its one-piece construction makes it a very handy tool which may be used in the kitchen or bar or on camping trips or the like.

Another important object of this invention is the provision of a tool of the character described, wherein all of its parts cooperate with each other to perform the several functions above enumerated. Thus, the punch which punctures the hole mentioned in paragraph (*a*) is the same punch which punctures the pouring hole mentioned in paragraph (*b*). The punch mentioned in paragraph (*a*) performs its function in cooperation with a hook which engages the peripheral bead of the can, and the same hook serves as a stop member to prevent said punch from puncturing the spout hole mentioned in paragraph (*b*) too deeply. The punch which punctures the air hole mentioned in paragraph (*b*) also serves as the pivot on which the tool tilts in accordance with paragraph (*d*). The two punches which puncture

2

the two holes mentioned in paragraph (*b*) also serve as plugs for closing off said holes as mentioned in paragraph (*c*). The tool has an upwardly curved end which serves as a thumb-piece or finger-piece for tilting purposes as mentioned in paragraph (*d*). This upwardly curved end also serves as one of the elements of the bottle cap opening feature, the other element constituting a hook which engages the lower peripheral edge of the bottle cap. But this latter hook also serves as a stop member to limit the tilting movement mentioned in paragraph (*d*) and hence there is a definite interrelationship between the features and elements of paragraphs (*d*) and (*e*). And of course each end of the tool serves as a handle for the opposite end.

In a second form of this invention, the punch to which reference is made in paragraph (*a*) is stepped to limit its depth of penetration in the puncturing of the spout hole mentioned in paragraph (*b*). In this form of the invention there is no need to use the hook adjacent said punch as a stop member to limit the depth of its penetration. Another feature of this form of the invention is the use of a prominence behind the punch which punctures the air hole, as a pivot on which the tool may tilt in accordance with paragraph (*d*). When the tool tilts on this prominence, it raises the air hole punch slightly out of said hole and thereby provides a passageway for the air which enters the can in displacement of its contents. This latter feature is not unique with respect to the second form of the invention alone but it may also be applied to the first form above discussed. And the same is also true of the stepped punch which may also be incorporated, if desired, into the first form of the invention.

The preferred forms of this invention above mentioned are illustrated in the accompanying drawing, in which:

Fig. 1 is a side view of a tool made in accordance with the first form of the invention and showing both of its punches in punctured engagement with one end of a can.

Fig. 2 is a similar view but showing the tool in tilted or pivoted position on said can with its spout hole puncturing punch raised out of engagement with the can.

Fig. 3 is a top view of said tool.

Fig. 4 is a view similar to that of Fig. 1, showing a tool made in accordance with the second form of the invention.

Fig. 5 is a view similar to that of Fig. 2, but showing the tool made in accordance with the second form of the invention.

Fig. 6 is a view of the spout hole puncturing punch.

Referring now to the first form of the invention, it will be seen that it comprises a tool 10 having a bar 12 which serves as its frame, structural backbone and handle. It has an upwardly turned end 14 and a downwardly pointing punch 16 at its opposite end. A second punch 18 is provided adjacent the upwardly turned end 14 and said second punch also points downwardly. Both punches may be inserted into an end wall of a can 20 such as the cans commonly used for evaporated and condensed milk. Punch 16 punctures a spout hole 22 into the can and punch 18 punctures an air hole 24 into the can. After these two holes are punched, the tool may be rocked or tilted in clockwise direction as viewed in Fig. 1, from its position in Fig. 1 to its position in Fig. 2. This may be done by pressing downwardly upon upwardly turned end portion 14 and punch 18 will serve as a pivot or fulcrum for such pivotal movement. The effect of such movement is to swing punch 16 out of hole 22 and to cant punch 18 in hole 24. The contents of the can may now be poured out of the can through spout hole 22 and air is free to enter the can through air hole 24, since the changed position of punch 18 in hole 24 opens said hole sufficiently to allow air to enter the can.

A hook 26 is provided near punch 22, said hook being disposed to face said punch and to cooperate therewith in opening a can, such as a beer can. This may be done by hooking hook 26 under the peripheral bead 28 of the can and using said hook as a fulcrum to bring the punch into puncturing engagement with the end of the can. But when the tool is used in the manner illustrated in Figs. 1 and 2, hook 26 performs the further function of serving as a stop member against the end of the can to limit the depth of penetration of punch 16 into said can.

A second hook 30 is provided on upwardly turned end portion 14. This hook may be used to engage the peripheral edge of a crown cap on a bottle such as a bottle of soda water or beer, to pry said cap off said bottle in cooperation with said upwardly turned end portion. Said end portion is brought into abutment with the top of the cap to serve as a fulcrum for bar 12 and when said bar is caused to rock on said fulcrum in clockwise direction as viewed in Fig. 1, hook 30 will be caused to pry the cap off the bottle. When, however, the tool is used in the manner illustrated in Figs. 1 and 2, hook 30 engages the end of the can to serve as a stop member to limit the rocking movement of the bar in clockwise direction. If desired, hook 30 may be employed as a fulcrum for further pivotal movement of the tool in clockwise direction. When this occurs, punch 18 is lifted partly out of hole 24 to provide a larger opening for the air to pass through.

Referring to the second form of the invention, it will be seen that bar 40 has an upwardly turned end portion 42 at one end and a downwardly turned end portion 44 at its opposite end. Downwardly turned portion 44 is the main punch, corresponding to punch 16. It will be noted in Fig. 6, however, that punch 44 is stepped to provide a relatively small punch 46 and a pair of shoulders 48 and 50 separating said small punch 46 from the main body of end portion 44. Shoulders 48 and 50 serve as stop members to limit the depth of penetration of punch or end portion 44 when the tool is used in the manner shown in Figs. 4 and 5.

Another feature of the second form of the invention resides in the prominence of bight 52 between upwardly turned end portion 42 and punch 54. This prominence serves as a fulcrum when the tool is tilted in clockwise direction and as Fig. 5 clearly shows, the effect is to withdraw punch 46 from hole 56 and to partly withdraw punch 54 from hole 58. Hook 60 may serve as a stop to prevent tilting beyond a predetermined point. In other respects the tool now under discussion is similar to the first described tool.

I claim:

A combination can opener and closure, comprising a bar which has a downwardly pointing punch at one end for punching a spout hole into the top wall of a can, a second downwardly pointing punch being provided on said bar a spaced distance from the first punch for punching an air hole into said top wall of the can, said bar being bent upwardly adjacent the second punch to form an elevated handle, the bend adjacent said second punch being adapted to serve as a fulcrum against said top wall of the can so that the bar may be rocked by depressing said elevated handle, whereby the first punch is swung upwardly completely out of the spout hole to open said spout hole for pouring and the second punch is swung upwardly partly out of the air hole to open said air hole for venting purposes, a stop member being provided adjacent the second punch to engage the top wall of the can and prevent said bar from rocking beyond a predetermined angle, a second stop member being provided adjacent the first punch to serve as a stop for the bar when it is rocked in the opposite direction.

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