June 20, 1939. H. C. WILL 2,163,301

CAN OPENER AND HOLDER

Filed May 26, 1937

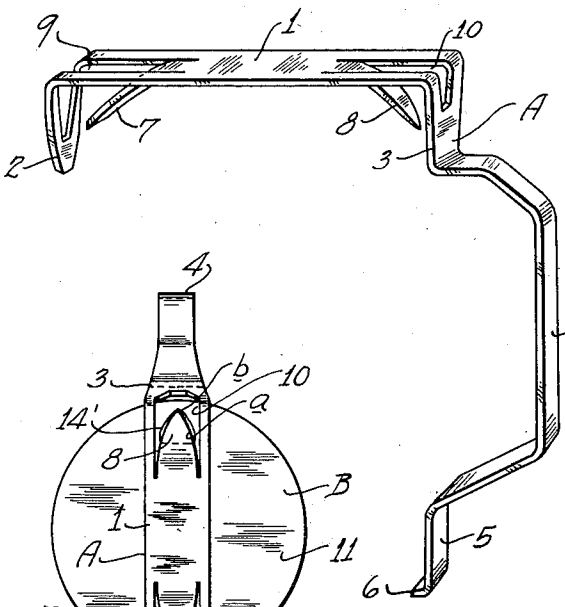


Fig. 1.

Fig. 3.

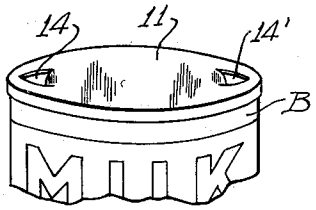


Fig. 4.

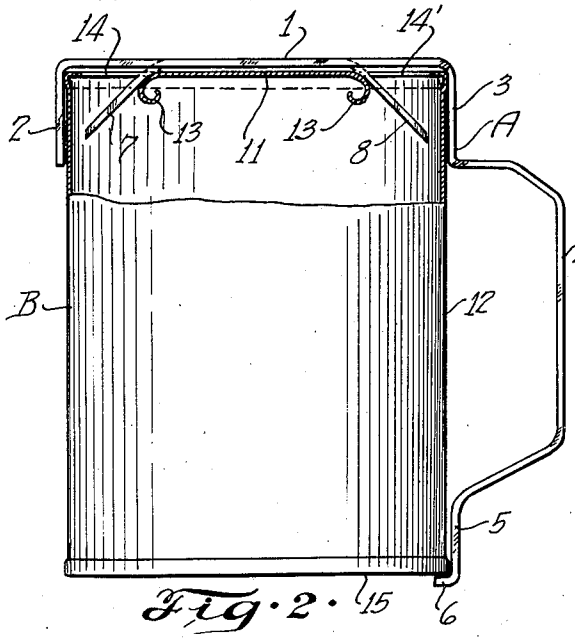


Fig. 2.

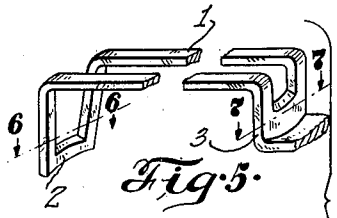


Fig. 5.



Fig. 6. Fig. 7.

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CAN OPENER AND HOLDER

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3 Claims. (Cl. 30—16)

This invention relates generally to can-openers and, more particularly, to a combined vent-forming can-opener and holder, which is especially, though not exclusively, adapted for use with hermetically sealed cans of liquid products, such as condensed milk, syrup, oil, and the like.

My invention has for its primary object the provision of a combined can opener-and-holder, which is exceptionally simple in structure, economical in cost of manufacture and production, and convenient in use and operation, which is so uniquely formed as to provide a unitary structure for not only properly puncturing the top of the can for simultaneously producing joint air and pouring vents, but also serving as a holder for convenience in the operation of pouring the contents of the punctured can in kitchen or table use, which may be readily attached and removed from the can, and which is highly efficient in the performance of its intended functions.

And with the above and other objects in view, my invention resides in the novel features of form, construction, arrangement, and combination of parts presently described and pointed out in the claims.

In the accompanying drawing,

Figure 1 is a perspective view of a combined can opener-and-holder constructed in accordance with and embodying my present invention;

Figure 2 is a side elevational view, partly broken away and in section, of the combined can opener-and-holder in attached operative position upon a can;

Figure 3 is a top plan view of the combined can opener-and-holder in attached operative position upon a can;

Figure 4 is a fragmentary perspective view of a can, illustrating the vent and pouring openings formed by the combined can opener-and-holder;

Figure 5 is a fragmentary view of a modified form of combined can opener-and-holder embodying my invention; and

Figures 6 and 7 are transverse sectional views of the modified can opener-and-holder, taken approximately along the lines 6—6 and 7—7, respectively, Figure 5.

Referring now in more detail and by reference characters to the drawing, which illustrates practical embodiments of my invention, the combined can opener-and-holder A is formed preferably from a single initially flat strip of suitable preferably metallic material punched and shaped to include, as a unitary structure, a top cross bar 1 integrally provided at its opposite extremities with downwardly extending side arms 2, 3, the arm 3 being, in turn, integrally joined at its lower extremity with an outwardly and downwardly bent handle-forming portion 4, which is, at its lower extremity, bent downwardly in the formation of a can-wall engaging member 5 having an inwardly extending can-bottom engaging lip 6.

The top cross bar 1 is provided with two opposed arcuately curved cutter prongs 7, 8, which are preferably formed by a perforating and stamping die during the initial shaping operation, the punched-out prongs 7, 8, providing apertures 9, 10, which extend around the extremities of the bar 1 and downwardly into the side arms 2, 3.

The cutter prongs 7, 8, are further curved along their lateral margins, as at *a*, in the formation of sharpened points *b* and are also curved arcuately downwardly and outwardly away from each other, for purposes more fully appearing and as best seen in Figure 1.

In use, the combined can opener-and-holder A is pressed downwardly upon the top-wall 11 of a hermetically sealed can B, so that the bar 1 extends or is positioned diametrically across the can-wall 11, as shown in Figure 3, and the handle 4 extends downwardly along the can side-wall 12, as shown in Figure 2. As the combined can opener-and-holder A is pressed downwardly upon the can top-wall 11, the cutter prongs 7, 8, will perforate said wall and shear the metal thereof backwardly toward the center of the can top-wall 11. As such metal shearing operation takes place, the metal being cut or punched out of said openings will be curled back tightly, as shown at 13 in Figure 2, thus forming a pair of diametrically opposed openings 14, 14', of somewhat "spear-head" conformation, the points of which are contiguous to the outer periphery of the can top-wall 11. As the can opening or punching operation is finished and the under face of the top bar 1 is brought into flushwise engagement with the can top-wall 11, the side arms 2, 3, will be positioned downwardly in diametrically opposed relationship along the cylindrical side wall 12 of the can B. The side-wall engaging member 5 will also be positioned along the bottom portion of the side-wall 12 of the can B in alignment with the side arm 3, and the bottom-engaging lip 6 will extend radially inwardly under the margin or rim of the can bottom-wall 15 for securely holding the combined can opener-and-holder A in engagement upon the can in the pro-

vision of a pouring handle, as best seen in Figure 2.

In pouring the contents from the opened can B, the handle 4 is grasped and the can tilted downwardly, so that the can-opening 14 becomes a pouring spout and the opposite can opening 14' becomes an air vent. Since the cutter prong 7 extends downwardly into the can in the path of the outwardly flowing liquid, the liquid will be forced to flow around the prong 7, thereby causing the liquid to flow outwardly in a smooth regulated stream and preventing splashing or "gurgling". The opening 14, further, by reason of its particular shape and by reason of the fact that its point is contiguous to the peripheral edge of the can, will provide an exceptionally efficient pouring spout, which will not drip or allow globules of the poured liquid to run downwardly along the outer face of the can. In addition, the opening 14 will always remain unobstructed between pouring operations by reason of the fact that the cutting prong 7 will prevent the liquid stream from entirely filling the opening 14 as it passes outwardly therethrough, thus preventing the formation of a congealing film thereacross. In a similar manner, the cutting prong 8 will protect the vent-forming opening 14' against obstruction due to accidental splashing of the liquid contents of the can as it is moved about.

Obviously when the contents of the can have been exhausted, the combined can opener-and-holder A may be easily and quickly lifted upwardly and off of the emptied can for successive similar use on other cans.

In the event that it is desired to provide an exceptionally secure can-gripping contact, the side arms 2, 3, and the can-wall gripping member 5 may be convexly curved to conform to the cylindrical curvature of the can-wall, as shown in Figures 5, 6, and 7.

Thus it will be seen that by my present invention I provide a combined can opener-and-holder which fulfills in every respect the objects stated, and it should be understood that changes and modifications in the form, construction, arrangement, and combination of its several parts may be made and substituted for those herein shown and described without departing from the nature and principle of my invention.

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

1. As an article of manufacture, a combined can holder-and-opener comprising a cross bar having can side-wall engaging arms formed integrally on and extending downwardly at right angles from the opposite ends thereof, said arms being shaped in cross-section to conform to the curvature of the can side wall, a pair of opposed downwardly presented cutter prongs formed on the cross-bar, and a handle member formed integrally on and extending downwardly from the lower extremity of one of said arms.

2. As a new article of manufacture, a combined can holder-and-opener comprising a cross bar having can side-wall engaging arms formed integrally on and extending downwardly at right angles from the opposite ends thereof, said arms being shaped in cross-section to conform to the curvature of the can side wall, a pair of opposed downwardly presented cutter prongs formed on the cross-bar, a handle member formed integrally on and extending downwardly from the lower extremity of one of said arms, and a can-bottom gripping member formed integrally on and extending downwardly from the lower extremity of said handle member.

3. As an article of manufacture, a combined can holder-and-opener comprising a cross bar having can side-wall engaging arms formed integrally on and extending downwardly at right angles from the opposite ends thereof, a pair of opposed downwardly presented cutter prongs formed on the cross-bar, a handle member formed integrally on and extending downwardly from the lower extremity of one of said arms, and a can-bottom gripping member formed integrally on and extending downwardly from the lower extremity of said handle member, said arms and said gripping member being transversely curved in conformation with the curvature of the can side-wall.

HERBERT C. WILL.