Sept. 12, 1950 E. A. WITTE ET AL 2,522,420

CAN OPENER

Filed Nov. 24, 1947

Fig. 1.

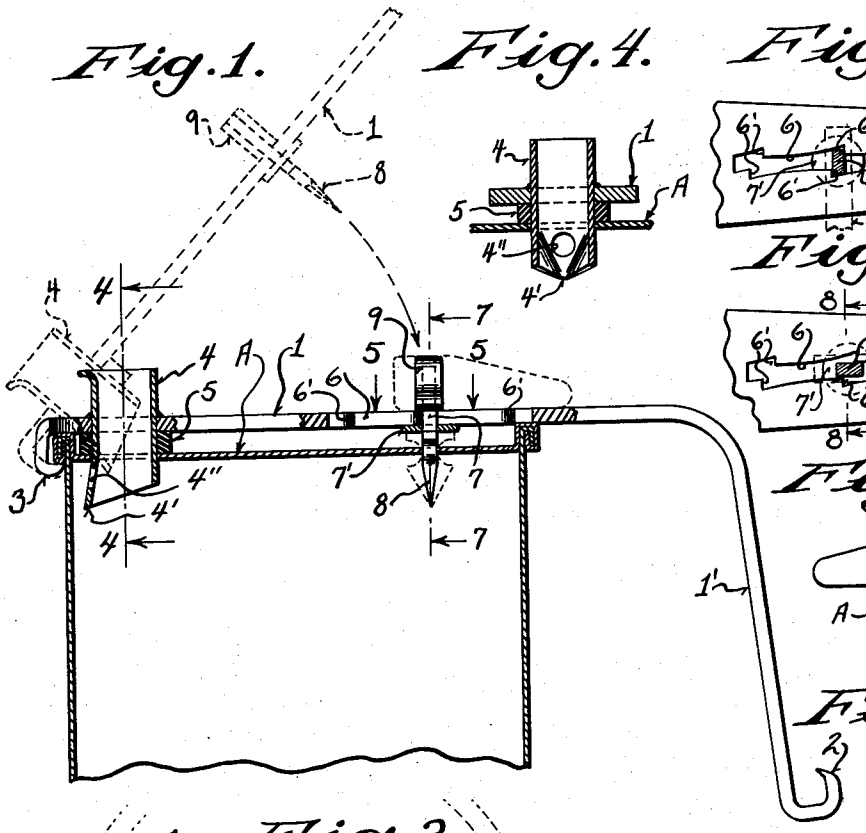


Fig. 4.

Fig. 5.

Fig. 6.

Fig. 7.

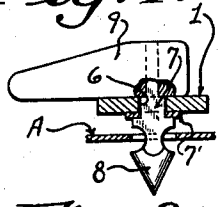


Fig. 8.

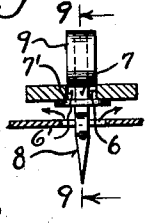


Fig. 2.

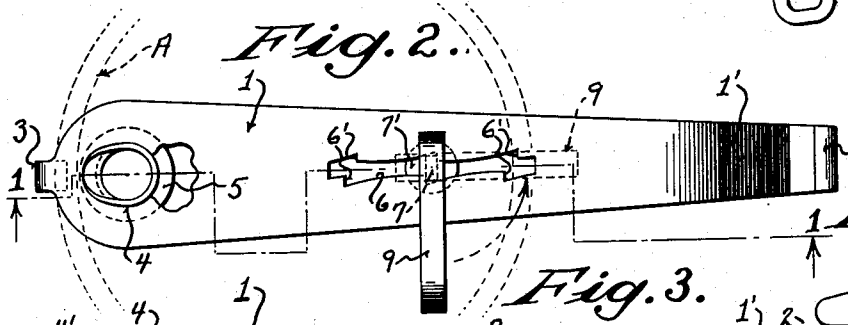


Fig. 9.

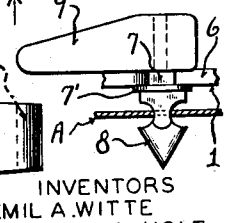
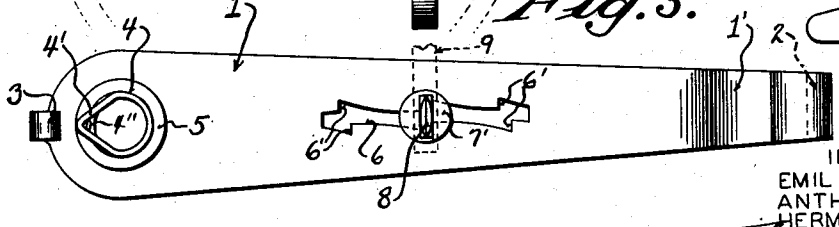


Fig. 3.



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CAN OPENER

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1 Claim. (Cl. 222—85)

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Our invention refers to can opening tools.

The primary object of our invention is to provide a lever carrying fixed pouring spout at one end and a key-head vent piercing point at the opposite end, the same being adjustable for different sized sealed topped cans. The said key-head, after puncturing the can top, is twisted at approximately a one-quarter turn, to lock the tool to said can, whereby it may be utilized as a manipulating handle for pouring the can contents such as milk, syrup or vegetable fluids.

With the above and other objects in view, which will appear as the description proceeds, the invention resides in the novel construction, combination and arrangement of parts, substantially as hereinafter described, and more particularly defined by the appended claim, it being understood that such changes in the precise embodiment of the herein disclosed invention may be made as come within the scope of the claim.

In the accompanying drawings is illustrated one complete example of the physical embodiment of the present invention constructed according to the best mode so far devised for the practical application of the principles thereof.

In the drawings:

Figure 1 is a sectional elevation of a can and affixed thereto a can opening lever, the section being indicated by line 1—1 of Figure 2.

Figure 2 is a top plan view of the same.

Figure 3 is a bottom plan view of said lever.

Figure 4 is a detailed, sectional elevation of the lever spout mechanism, the section being indicated by line 4—4 of Figure 1.

Figure 5 is a sectional, plan view through the key-head, the section being indicated by line 5—5 of Figure 1.

Figure 6 is a similar, sectional view illustrating the key-head in its locked position.

Figure 7 is a sectional elevation of the key-head shown in its piercing position, the section being indicated by line 7—7 of Figure 1.

Figure 8 is a similar, sectional elevation through the key-head in its locked position relative to a puncture.

Figure 9 is also a sectional elevation of the key-head in its locked position with relation to the puncture.

Referring by characters to the drawings, A indicates the top flange cover of a can and seated upon the flange of the can cover is a lever 1 having one end bowed downwardly to form a handle 1', the end of the handle terminating with a bottle cap extracting burr 2.

The opposite end of the lever has extending

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downwardly therefrom a gripping tooth 3 which tooth engages the lower face of the can flange.

Soldered or otherwise secured to the toothed end of the lever is a spout 4, the lower end of which is beveled to form a piercing point 4', it being understood that said spout is also provided with a drain vent 4''.

As shown in Figure 1 of the drawings, the spout is illustrated as having punctured the top A and extends therein. Hence, the vent will thoroughly drain the contents of the can when it is practically empty. In order to effect a tight joint between spout and can top, we provide a rubber gasket 5 which is slipped thereover and seated under slight pressure upon the outer face of the can top.

As best illustrated in Figures 2 to 9, inclusive, the lever 1, adjacent to its inner end, is formed with a slot 6, which slot is provided with pairs of oppositely disposed, notched teeth 6' at the ends of said slot and also at an intermediate part of the same. These notch teeth, in effect, develop three loops for the reception of the shank 7 constituting part of a key-head.

The lower end of the shank 7 terminates with a flat spear-headed point 8, and the upper end of the shank is embedded in and suitably secured to an actuating wing 9, the same being positioned above the lever. The shank also carries a washer 7' loosely mounted thereon.

It should be understood that the series of toothed notches 6' in the slot 6 are for the purpose of adjusting the piercing key-head to accommodate different sized cans, it being kept in mind that any suitable number of these piercing positions of the key may be provided.

From the foregoing description, as indicated in dotted lines of Figure 1, when it is desired to open the can, the toothed end 3 is first inserted under the can flange and thereafter, the lever is swung downwardly to firmly seat upon said flange, as indicated in full lines of Figure 1.

In the above described position, the spear-head 8 has punctured the top of the can and after said puncture, as best best indicated in Figure 7 of the drawings, in said position the spear-head is entirely below the can top surface.

In the meantime, the spout which has also punctured the can top is in position for pouring, but prior to pouring the contents from the can, the key-head is rotated approximately one-quarter of a turn from the transverse position shown in Figure 2 to a longitudinal position, as indicated in dotted lines Figure 2, whereby the wing lies longitudinally with reference to the

lever. Hence, as will be noted in Figures 6 and 7 of the drawing, the shank 7 of the spear-head is first positioned transversely of the lever and locked in the intermediate notched teeth of the slot. From this described position, as shown in Figure 6, the spear-head wing is rotated one-quarter of a turn in the slot notch, whereby it is freed from the pierced slot, and the spear-head is positioned transversely of the puncture slot whereby said spear-head firmly locks the lever to the can to form a rigid handle.

The can and associated lever are now securely locked together and ready for pouring the can contents through the spout while at the same time, an upper vent which is formed in the cover by the spear-head will permit free flow of the fluid.

Thereafter, the rear downwardly portion of the lever is utilized as a handle whereby the can may be readily tilted for pouring and conveniently manipulated by the handle, which is practically an integral part of said can.

While we have shown for convenience in production a peculiarly notched slot into which is adjusted the locking head, we may in some instances vary the notches.

In addition to the functions of the lever 1 for opening up the can, it should be noted that the burr 2 at the end of said can may be conveniently employed for stripping caps from bottles or other containers.

We claim:

In a vent puncturing device for can openers having a lever terminating at one end with a downwardly bowed handle and the can gripping tooth at the opposite end, a spout extending through the lever adjacent the gripping tooth end, the lower end of the spout forming a can top puncturing unit; a vent puncturing device comprising a slot in the lever adjacent to its handle end, the slot being provided with oppositely disposed pairs of notched teeth at its end and at the intermediate point, a vent key-head mounted in the lever slot having a rectangular shank slidable inset slot and engageable with anyone of the pairs of notched teeth, whereby vents in cans of different dimensions may be formed at their edges, a spear-head extended from the key-head shank and an actuating wing extending from the upper end of said shank, whereby the spear-head forming an elongated vent opening in a can is twisted to fully expose the vent opening and also to lock the lever handle and can together.

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