

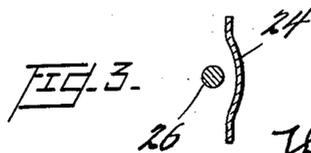
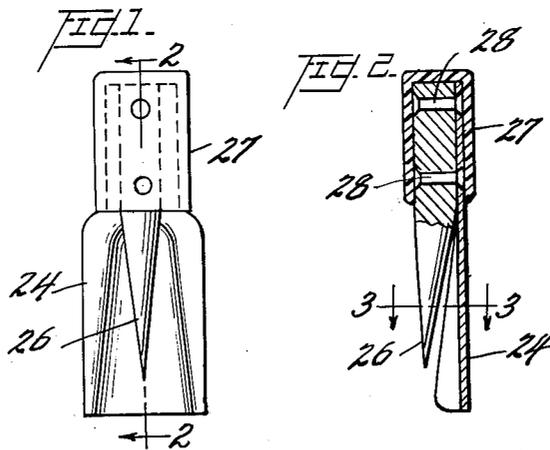
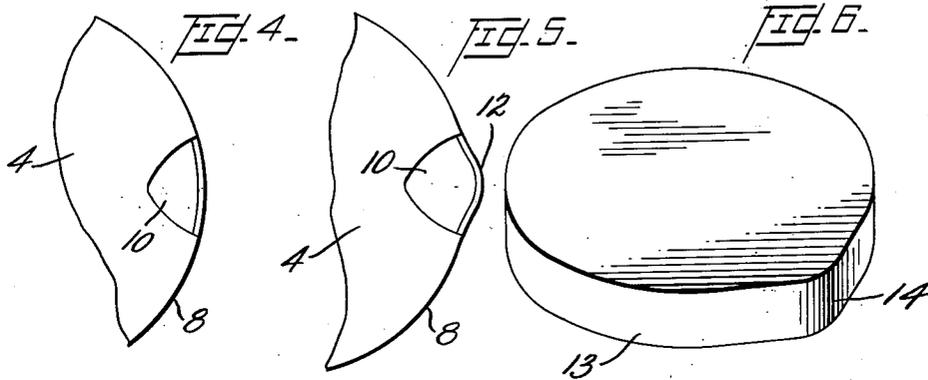
Feb. 19, 1963

T. K. MARBURY

3,077,662

COMBINATION PIERCING AND POURING SPOUT TOOL

Filed Nov. 16, 1961



INVENTOR

Thomas K. Marbury

1

3,077,662
**COMBINATION PIERCING AND POURING
SPOUT TOOL**

Thomas Kingston Marbury, Forest City, N.C.
Filed Nov. 16, 1961, Ser. No. 152,826
1 Claim. (Cl. 30-6.3)

This invention relates to the art of piercing a tin can and the forming of a pouring spout in the can's side wall in a second's time. Due to the proper tapering and its graduated depth, a ten-year-old child can use it with ease. Thousands of pierced holes with pouring spouts in solder type cans, as well as the bead or joint type cans, proved it the ultimate in performance. Since the advent of casting a lip or curved portion on man's first skillet for the dripless removal of grease therefrom, the pouring spout has been desired by all. The developer, like millions of other coffee drinkers preferring evaporated milk in his coffee, pursued thousands of hours constantly working to achieve this disclosure.

From a review of the drawings wherein I disclose my invention, it will be seen that I show one form that requires only one downward thrust for the light metal containers, like evaporated milk. Whereas the heavier metal containers call for piercing and spouting, using piercing pointed parts which are aided by separate tapers and depths of their associated members. Therefore, the dual disclosure can hardly be considered two tools in one, since each end of its body is dependent on the other end for a proper dual function. Furthermore, the varying tapers and depths are one continuous channel, designed for simplicity and the saving of metal to reduce cost, so it could be sold at a popular price.

To facilitate an instant release of its hold on the can, the varying tapers and depths are an operational necessity. As I disclose, the sharp pointed piercer and spout former of the single thrust appliance, will penetrate the light metal can easily, and hold back the metal for a sufficient opening for the spout, whereas the heavier metal cans require different cutting procedures.

Heretofore, most all the piercing and spouting methods left ragged and sharp cutting metal parts on cans, whereas my method smooths the metal to avoid being cut when the can is handled. Furthermore, as I show recessed cutting and spouting for parts resting on can's side wall, as a guide, it likewise protects the hands when picking appliance up.

The absence of all moving parts is another outstanding achievement.

This much-needed tool by every housewife and mother of the civilized world is compact and durable, with no moving parts to wear, and not hard to clean. From the drawings, it will be seen that both the can piercing and spouting is done with an easy downward thrust. Therefore, it is the ideal piercer for the solder type of can, which is well known to be the hardest can to open by mothers and wives. While it was originally made for the solder type can, it will pierce and spout the beaded or joint type can just as well, because it requires no joint to catch on. Furthermore, the added protective cap or cover protects the spouting and air holes from contamination or adsorption of the liquids therefrom.

Referring now to the accompanying drawings, I disclose my invention by figures and numerals as hereinafter set out.

With the above and other useful purposes, the present invention consists of the novel construction of the two tapered members related to each other, as hereinafter more fully described.

2

In the drawings:

FIGURE 1 is a perspective view of the piercer-spouter in a vertical position as it would be used on a can to pierce and spout the can with one downward thrust.

FIGURE 2 is fragmentary elevational vertical view, being taken on line 2-2, of FIGURE 1, with parts in section.

FIGURE 3 is a cross section of the lower part of FIGURE 2, being taken on line 3-3.

FIGURE 4 is a can after having been pierced.

FIGURE 5 is a can with a partial spout formed in its side wall.

FIGURE 6 is a round-like lid cover with a protuberance in its side band and top, for the covering of say a milk can that has a protuberance or pouring spout formed in its side wall.

The piercer as shown as FIGURE 1 consists of an external member 24, being a pressing from sheet metal consisting of tapered varying widths and depths for 2/3 of its lower portion. The pointed tapered member 26, being of less length than the external member 24, provides a tin can resting and starting space on the external member 24. When the piercer-spouter is placed on the tin can in a vertical position, so the pointed member 26 rests on the can top near the outer edge, a slight push inserts the pointed member 26 in the can top. Its rigid position and relation to the external member 24 forms the can side wall to the tapered shape of the upper part of external member 24.

Having described my invention, I claim:

A spout-forming can opener comprising a solid punching member, an outer sheet-metal guiding and spout forming member and a cap member; said punching member having a cylindrical upper portion and an adjoining conical portion tapering to a sharp piercing point remote from the upper cylindrical portion; said guiding and spout forming member having an upper portion nested against and upper cylindrical portion of the punching member and secured thereto and a lower portion of substantially constant width of concavo-convex cross section whose concave face is toward the punching member with increased depth to the concavity to a maximum at the lower end of the member; the axis of the conical portion of the punching member being inclined relative to that of the upper cylindrical portion of the punching member and diverging from the central axis of guiding and spout forming member commencing at the start of said conical portion; said lower portion of the punching member being of less length than the guiding and spout forming member; said cap encasing the upper ends and sides of the upper portions of said punching and said guiding and spout forming members.

References Cited in the file of this patent

UNITED STATES PATENTS

1,814,487	Mueller	July 14, 1931
1,842,309	Borro	Jan. 19, 1932
1,926,186	Wilson	Sept. 12, 1933
2,009,779	Kronquest	July 30, 1935
2,025,103	Haudenschild	Dec. 24, 1935
2,059,367	Kittle	Nov. 3, 1936
2,243,511	Sowers	May 27, 1941
2,364,219	Johnson	Dec. 5, 1944
2,529,424	Seigh	Nov. 7, 1950
2,691,215	Grady	Oct. 12, 1954
2,778,103	Hudson	Jan. 22, 1957
2,943,389	Dubois	July 5, 1960
2,956,338	Lane	Oct. 18, 1960

FOREIGN PATENTS

821,882	Great Britain	Oct. 14, 1959
---------	---------------	---------------