March 26, 1957 M. F. CHARLTON 2,786,271

CAN PIERCER AND HOLDER

Filed Sept. 10, 1956

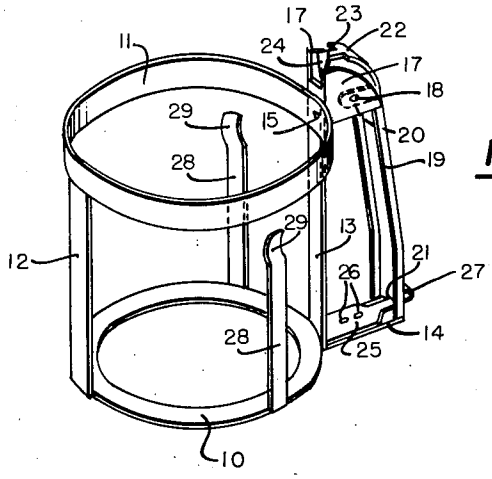


FIG. 1.

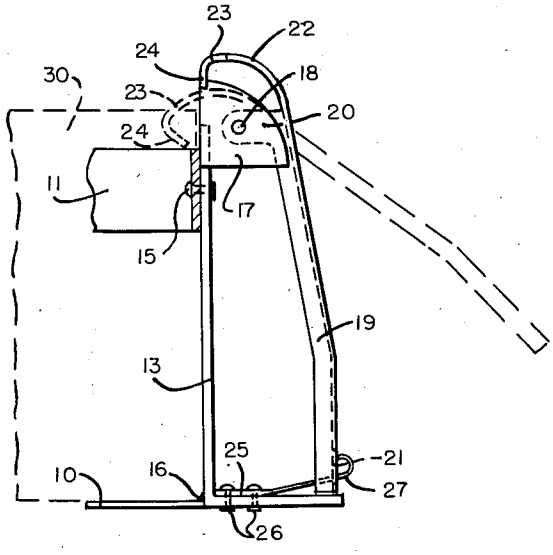


FIG. 2.

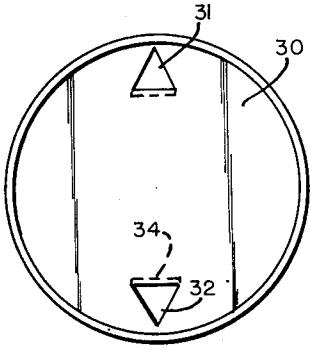


FIG. 3.

INVENTOR

Marcus F. Charlton

United States Patent Office 2,786,271 Patented Mar. 26, 1957

2,786,271

CAN PIERCER AND HOLDER

Marcus F. Charlton, Stouffville, Ontario, Canada

Application September 10, 1956, Serial No. 608,723

5 Claims. (Cl. 30—123)

This invention relates to can opening devices.

It is an object of the present invention to provide a can piercer and holder which is particularly adapted for evaporated milk cans although applicable to other types.

It is another object of the present invention to provide a can piercer and holder of the above type which not only cuts the necessary holes in the top of the sealed can but instantly converts the can itself into a pitcher ready for use instantaneously.

Other objects of the invention are to provide a can piercer and holder bearing the above objects in mind which is of simple construction, has a minimum number of parts, is inexpensive to manufacture and efficient in operation and use.

For other objects and for a better understanding of the invention reference may be had to the following detailed description taken in connection with the accompanying drawing, in which:

Figure 1 is a perspective view of a preferred embodiment of the present invention showing the can piercing member in the inoperative position to be used as a handle;

Fig. 2 is an enlarged side elevational view thereof shown partly in section and illustrating in phantom the movement of the can piercing member; and

Fig. 3 is a top plan view of the can after the holes have been sheared therein.

Referring now more in detail to the drawing, **10** represents a ring-shaped base member connected to an upper cylindrical ring **11** by means of the vertical spacers **12** and **13**, substantially as illustrated.

The spacer **13** extends upwardly above the upper edge of the ring **11** (Fig. 2) and is integrally formed at its lower end with the supporting portion **14** bent outwardly at right angles thereto. The ring **11** is secured to the spacers **12** and **13** by means of the rivets **15** or other suitable fastening means while the ring **10** is welded to the lower ends of the elements **12** and **13** as at **16**.

The vertical support **13** at the upper end thereof is integrally formed at right angles thereto with the laterally spaced segment-shaped bearing members **17** which are connected by the hinge rivet **18**. A V-shaped handle **19** (of U-shaped cross section for straightening purposes) is provided and is integrally formed at its upper end with the laterally spaced lugs **20** having laterally aligned openings which receive therethrough the hinge rivet **18** whereby to rotatably mount the handle thereat for a purpose which will hereinafter become clear. The lower end of the handle **19** is provided with a rectangular cutout **21** while the upper end thereof is integrally formed with the flat curved extension **22** which extends upwardly and inwardly and terminates in a reduced portion **23** which in turn is integrally formed with a downwardly bent prong or piercing member **24**, substantially as illustrated.

A leaf spring **25** is secured to the upper surface of the base portion **14** by the fastening means **26** and is integrally formed at its outer end with a reduced hook-shaped catch **27** adapted to normally engage the portion of the handle **19** above the cutout **21** and to retain the

same in the inoperative position of Figs. 1 and 2 and to serve as a handle. Upon pressing the catch **27** downwardly, however, the handle may be rotated in a counterclockwise direction, as shown in phantom in Fig. 2.

A pair of vertically extending leaf springs **28** are welded at their lower ends to the ring **10** and are integrally formed at their upper ends with the inwardly curved portions **29** which firmly engage the can of evaporated or condensed milk **30** which is positioned within the ring **11** and rests on the base ring **10**.

In operation, the can **30** is taken and placed in the open top of the ring **11** and pushed downwardly to the bottom ring **10**, the upper tips **29** of the leaf springs **28** engaging the sides of the can and holding it firm. Then the catch **27** is pressed downwardly to release the handle **19**. The handle is then rotated towards a horizontal position in a counterclockwise direction, simultaneously projecting the cutting point or prong **24** downwardly and into the can top, as shown in phantom in Fig. 2, to pierce the can with a triangular opening **31** having one of its apexes disposed uppermost. Next, the handle **19** is pushed back to its original position to be engaged by the catch **27** to retract the cutting point **24**. The can is then rotated 180 degrees in the holder with the other hand and a second opening for air is similarly provided by following the above steps, this opening being indicated at **32** (Fig. 3). The handle is again pushed back to its original position until engaged by the catch **27** to provide a convenient pitcher for dispensing milk or the like. The above procedure can be completed in a matter of seconds and the empty cans are easily ejected. The invention can, of course, be adapted for manufacture in a variety of materials.

It should be apparent that the device is simple and foolproof and anyone from housewife to coffee bar attendant can operate it with a minimum of time and effort. One of the advantages of the device is that the apex of the openings **31** and **32** is started near the periphery of the can **30** and the cut metal is rolled up ahead of the advancing cutter and thus is out of the path of the pouring liquid, enabling one to evacuate all of the contents of the can (Fig. 3) when employing the lowermost opening **32**. Thus, the flange or rolled up metal **34** is above the opening **32** and will not interfere with the flow of the liquid.

While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claims.

What I claim as new and desire to protect by Letters Patent of the United States is:

1. A can piercer and holder comprising a hollow member adapted to support therewithin a can, a pair of laterally spaced bearing members at the upper end of said holder at one side thereof, a horizontal supporting portion below said bearing members, a handle member pivotally mounted intermediate said bearing members with the lower end thereof resting on the outer end of said horizontal supporting portion, spring means carried by said horizontal supporting member for retaining the lower end of said handle in engagement with said supporting portion whereby to serve as a pitcher handle when the can is within said holder but to permit the release of the same, and can piercing means at the upper end of said handle adapted to shear an opening in the top of the can, said can piercing means rolling up the metal in front of the same so as not to interfere with the flow through the subsequent opening provided thereby.

2. A can piercer and holder according to claim 1, said can holder comprising a circular bottom plate adapted to support thereon a bottom of a can, a pair of oppositely disposed vertical supports secured at their lower ends to the periphery of said bottom plate, a hollow cylindrical

ring secured to the upper ends of said supports and adapted to receive a can downwardly therein and a plurality of oppositely disposed leaf springs secured at their lower ends to said bottom plate and extending upwardly therefrom to terminate in inwardly curved portions below said hollow cylindrical ring whereby to engage the sides of the can and to prevent rotational movement thereof.

3. A can piercer and holder according to claim 2, one of said oppositely disposed vertical supports extending upwardly above the upper edge of said hollow cylindrical ring and being integrally formed at right angles thereto with said laterally spaced bearing members, said horizontal support being integrally formed at the lower end of said vertical support.

4. A can piercer and holder according to claim 3, said spring means comprising the lower end of said handle having an upwardly extending cutout, and a leaf spring secured to the upper surface of said horizontal support and

integrally formed with outwardly extending reduced hook shaped member adapted to normally engage the portion of said handle above said opening therein and to release the same upon being depressed downwardly and to pass through said handle opening.

5. A can piercer and holder according to claim 4, said piercing means comprising the upper end of said handle being integrally formed with an inwardly and upwardly curved portion integrally formed at its upper end with a reduced portion following the curvature thereof, said reduced portion being integrally formed with a downwardly bent triangular prong adapted to pierce the top of the can near the periphery upon upward movement of said handle and to roll up the opening metal before the same so as not to interfere with the flow of liquid.

No references cited.