Dec. 30, 1930. C. A. LIQUORI 1,787,046

CAN OPENER

Filed July 26, 1929

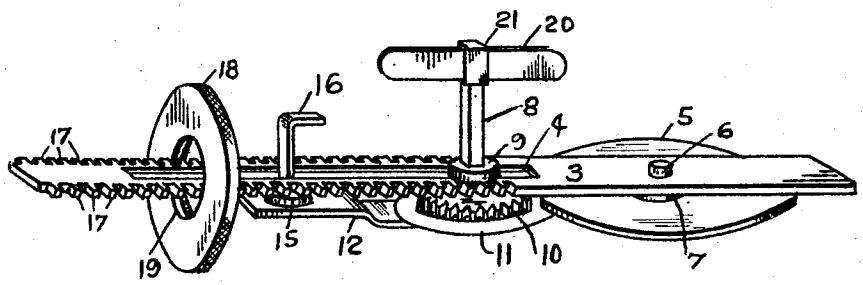


Fig-1

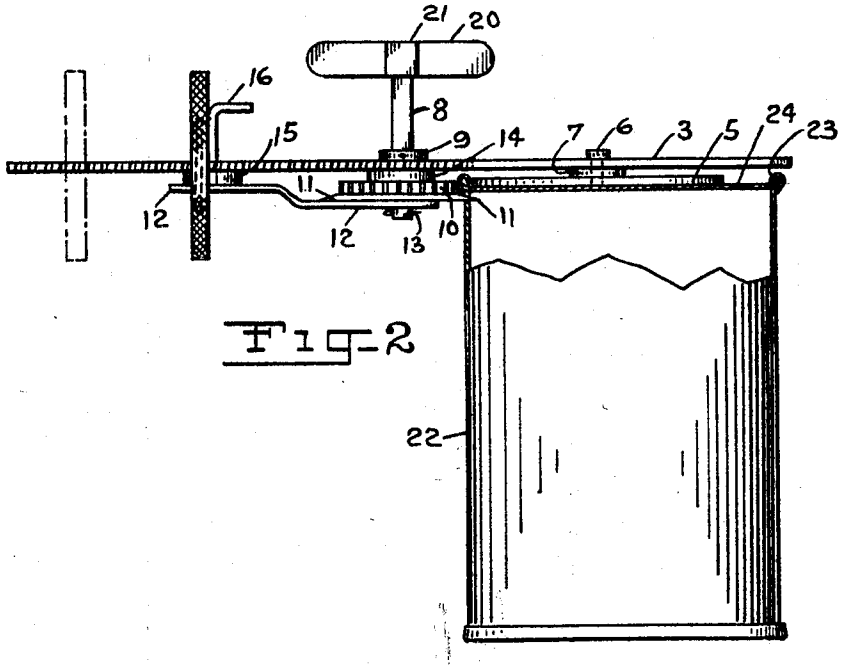


Fig-2

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Patented Dec. 30, 1930 1,787,046

UNITED STATES PATENT OFFICE

CELESTE A. LIQUORI, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO ERNEST F. LIQUORI, OF NEW YORK, N. Y.

CAN OPENER

Application filed July 26, 1929. Serial No. 381,132.

My invention relates to an improvement in a can opener and the novelty consists in the adaptation and arrangement of parts as will be more fully hereinafter pointed out.

There are many forms of can openers on the market but these are all either dangerous to operate because of the danger of slipping and cutting the operator or very difficult to operate because they require a strong grip to exert the compression necessary to make the cutting knife cut.

My device is both simple in construction and adapted to lock the cutting knife in the cutting position so that the entire top of the can can be readily removed by the mere turning of one handle.

Referring to the drawings Figure 1 is a perspective of my complete device and Figure 2 is a side elevation of the same mounted on a can in the cutting position.

In the drawings 3 is a slotted frame member having a slot 4 extending from near one end to a point beyond the middle of the same. A substantially large circular disk 5 is mounted in the frame 3 at the unslotted end by means of a riveted pin 6 and having a bearing washer 7 underneath the frame 3 whereby the disk 5 will rotate freely as mounted in the frame 3.

A square stem 8 is mounted through the slot 4 being adapted to slide and rotate freely therein and having a collar 9 rigidly secured thereto on the upper face of the frame 3. A second collar 14 is mounted on the stem 8 immediately beneath the frame 3 so as to act as a spacer and guide together with 9 in the movement of the stem 8 in the slot 4 and a knurled circular plate 10 is mounted over said square stem 8 below said frame 3 and a circular knife 11 is mounted on said stem 8 below said knurled circular plate 10. An extension element 12 is also mounted over the lower end of the stem 8 so that it will permit the stem 8 to turn freely therein and the parts named are held in place on the stem 8 by means of a cotter pin 13. At the outer end of the extension member 12 is rigidly mounted a collar 15 and a pusher member 16; the latter member projecting through the slot 4 and the collar member 15 serving as a contact plate against the inside of the frame 3. The outer edges of the slotted frame 3 are threaded at 17 in the usual well known manner and a wheel 18 internally threaded at 19 to engage the thread 17 is mounted over the frame 3 on the threads 17 and is adapted to screw back and forth thereon.

A handle 20 is rigidly secured to the upper end of the stem 8 at 21.

A can 22 has a top 24 and a lip 23 formed in the usual well known manner by the clipping of the top and side of the can 22 together as shown in Figure 2 with my device mounted thereon.

In operating my device the disk 5 is placed on the top 24 of the can 22 so that the outer edge of the disk comes against the lip 23 of the can 22. The wheel 18 is then turned on the threading 17 in the clockwise direction thereby pushing the pusher element 16 and the stem 8 together with the parts mounted thereon through the connection of the extension member 12 whereby this complete unit is pushed along in the slot 4 of the frame 3 until the circular knife 11 punctures the side of the can 22 as shown in Fig. 2 and thereby at the same time bringing the knurled disk 10 tightly in contact with the exterior of the can 22 in substantially the same plane as the disk 5 and as the wheel 18 is turned clockwise as far as possible to lock these parts together as described the handle 20 can then be turned whereby the knurled disk 10, engaging the external portion of the can 22, will carry the circular cutting knife 11 around the top of the can together with the disk 5 which travels on the inside of the lip 23 whereby the complete top of the can will be cut off.

It will merely be necessary to rotate the wheel 18 counter clockwise to release the pusher member 16, extension element 12 and the stem 8 together with its parts mounted thereon so as to slide the same back away from the disk 5 so that the device will be ready to be mounted on another can for another operation.

Many variations may be made in the construction of my device without departing from the spirit and intent of the same and

which are intended to be covered by the claims and disclosure herein.

I claim:

1. In a can opener the combination of a slotted frame, a large disk rotatably mounted thereunder at one end, a slot in said frame running from the inner edge of said disk to a point near the opposite end of said frame, a handle and stem mounted in said slot so as to slide and rotate easily therein, a knurled disk and circular knife mounted on said stem under said frame so as to rotate therewith, an extension member mounted on said stem below said knife and carrying a pusher rigidly secured to its outer end, threading on the outer edges of said frame and a wheel internally threaded to engage the threading on said frame.

2. In a can opener a slotted frame, a disk rotatably mounted at one end of said frame, a handle and stem slidably mounted in said frame slot, a knurled disk and circular knife mounted on the lower end of said stem in approximate alignment with said disk, an extension member mounted on said stem below said knife carrying a pusher member rigidly secured to its outer end projecting through said slot, threading on the outer edges of said frame and a wheel internally threaded to engage said frame threading.

In testimony whereof I affix my signature.

CELESTE A. LIQUORI.