July 22, 1924.

1,502,054

E. A. ORMSBY

CAN OPENER

Filed March 21, 1924

Fig. 1

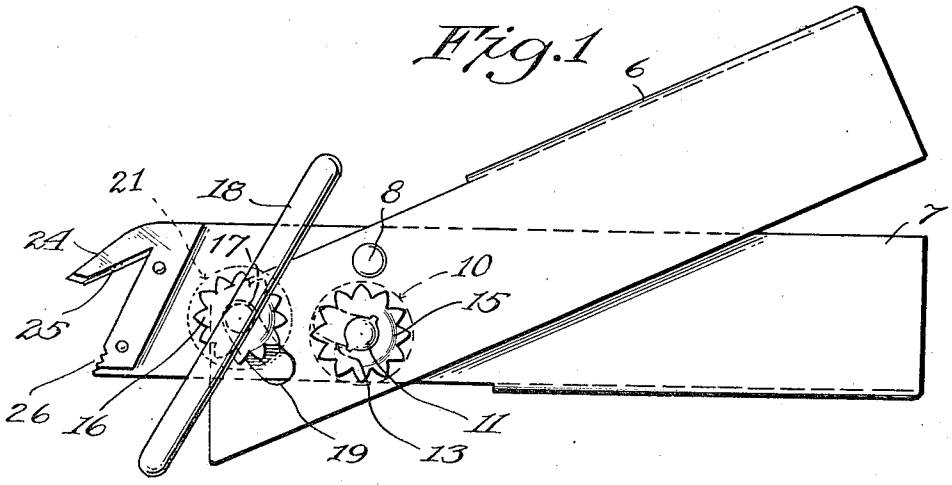


Fig. 2.

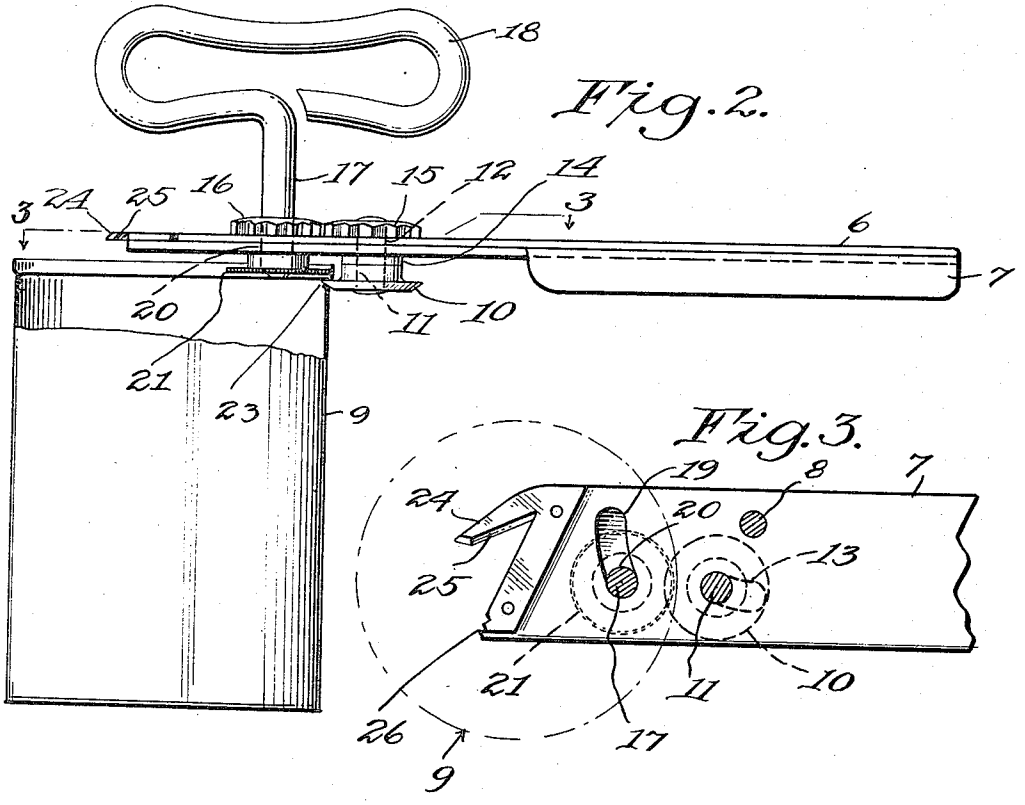


Fig. 3.

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UNITED STATES PATENT OFFICE.

ELON A. ORMSBY, OF CENTERVILLE, CALIFORNIA.

CAN OPENER.

Application filed March 21, 1924. Serial No. 700,828.

To all whom it may concern:

Be it known that I, ELON A. ORMSBY, a citizen of the United States, residing at Centerville, in the county of Alameda and State of California, have invented certain new and useful Improvements in Can Openers, of which the following is a specification.

This invention relates to can openers of that type employing a rotary cutter which when the tool is applied to the rim or corner of a can or the like will travel around the same to make a clean shear cut so that the whole head of the can can be removed and the contents of the can slipped out without breaking the same.

The object of the invention is to produce an efficient, strong and simple device of the kind referred to the details of which will be more fully apparent from the following description and the accompanying drawings, in which Fig. 1 is a top plan view of the device. Fig. 2 is a side elevation showing the device applied to a can. Fig. 3 is a detail in section on the line 3—3 of Fig. 2.

Referring specifically to the drawings, 6 and 7 indicate a pair of handles which are pivoted together at 8. When the device is applied to the rim of a can, these handles are in open position, and are then closed to advance the cutter to the can indicated at 9, and to also throw the cutter in gear with means to rotate the same. The rotary circular cutter is indicated at 10 and is fixed on a pin or shaft 11 which is mounted in a bearing at 12 in the handle member 6, and extends thru an arcuate slot 13 in the lower handle member 7. A spacing washer 14 is fitted between the cutter and the handle member 7.

The upper end of the pin or shaft 11 carries a pinion 15 which, when the handles are closed, is meshed with a pinion 16 fixed on a shaft 17 which has a crank handle 18 whereby it may be turned. This shaft 17 extends thru an arcuate slot 19 in the upper handle member 6 and also thru a bearing hole at 20 in the lower handle member 7, and below said lower handle member it carries a knurled wheel 21, fixed thereto, the edge of which wheel is adapted to engage against the inner edge of the rim of the can, as shown at 23, slightly above the plane of the cutting edge of the cutter 10. The handles 6 and 7 are conveniently made of sheet metal flanged on their outer edges to give an easy grip, and the slots 19 and 13 therein are cut on the arcs having the pivot 8 as a center.

For use on cans which do not have a rim at the top, or for other similar purposes, the front edge of the handle member 7 has a punch blade 24 riveted thereto, with a cutting edge at 25, and teeth at 26, so that when necessary the punch can be driven thru the head of a can which may then be cut out in the manner of an ordinary rigid can opener.

In the operation of the can opener with the rotary cutter, as above described, the handles 6 and 7 are opened, which has the effect of withdrawing the cutter 10 from the knurled wheel 21, giving an opening sufficient to enter the rim of the can between the cutter 10 and the knurled wheel, the handle members projecting at the side in a horizontal position. The same action disengages the pinions 15 and 16. Then the handles are brought together after the manner of a pair of pliers or scissors, and the eccentricity of the pivot 8 causes the cutter 10 to be brought against the outer side of the rim of the can and the knurled wheel 21 to be brought against the inner side of said rim which is thus gripped between the cutter and said wheel. By the same action, the pinions 15 and 16 are meshed. The crank 18 is then turned thereby rotating the wheel 21 and the cutter 10, causing both to travel around the rim of the can, the cutter 10 cutting thru the rim just below the edge thereof and under the head of the can which when the cut is complete can be removed as a whole, leaving the end of the can completely open and without any rough edges.

The gripping action when the device is applied is such that any can of ordinary size with a lip may be lifted out of hot water by engaging the lip between the knurled wheel and the circular cutter, the pivotal action of the handles pressing them together and forcing the cutter thru the can wall, and then by turning the crank handle either way, the top of the can may be cut off without the necessity for holding the can in the hands. This prevents much injury to hands and fingers as by the old style can opener, and has the further advantage that the top is cut off clean and the entire contents of the can can be emptied without breaking.

The invention is not limited to the particular form shown but various modifications

are possible within the scope of the following claims.

I claim:

1. A can opener comprising a pair of pivoted handles each having an arcuate slot concentric with the pivot, a rotary cutter having a shaft mounted in a bearing in one handle and extending thru one of said slots, a crank shaft mounted in a bearing in the other handle and extending thru the other arcuate slot, a knurled wheel on the crank shaft, said cutter and wheel being disposed opposite to each other and movable toward and from each other by closing and opening the handles, and pinions mounted on the cutter shaft and the crank shaft and adapted to mesh with each other when the handles are closed.

2. A can opener as set forth in claim 1, the cutter and knurled wheel being located on the under side of the handles and the crank pinions being located on the upper side of the handles.

3. A can opener as set forth in claim 1, the pivot between the handles being located eccentric to the said shafts.

In testimony whereof, I affix my signature in presence of two witnesses.

ELON A. ORMSBY.

Witnesses:

SIDNEY A. SNOW,

VIRGINIA G. SNOW.