June 5, 1951 R. H. WALLER 2,555,835

CAN OPENER

Filed Aug. 28, 1947

FIG 1

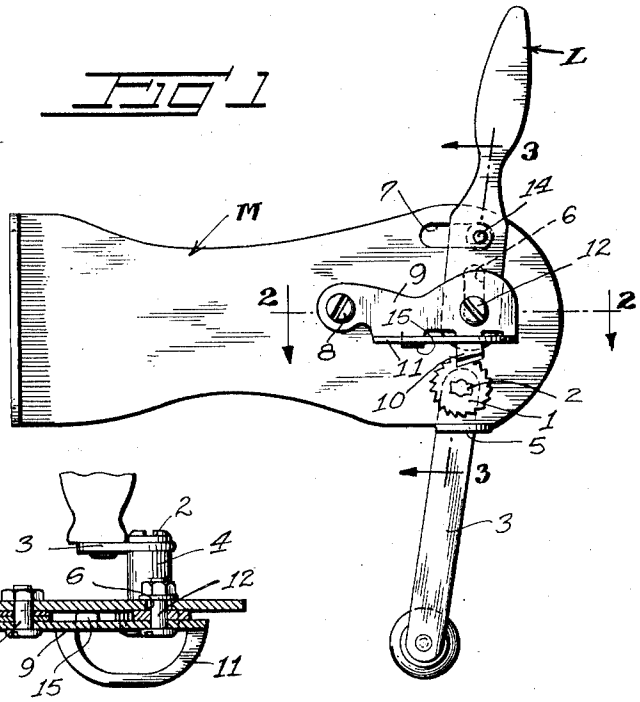
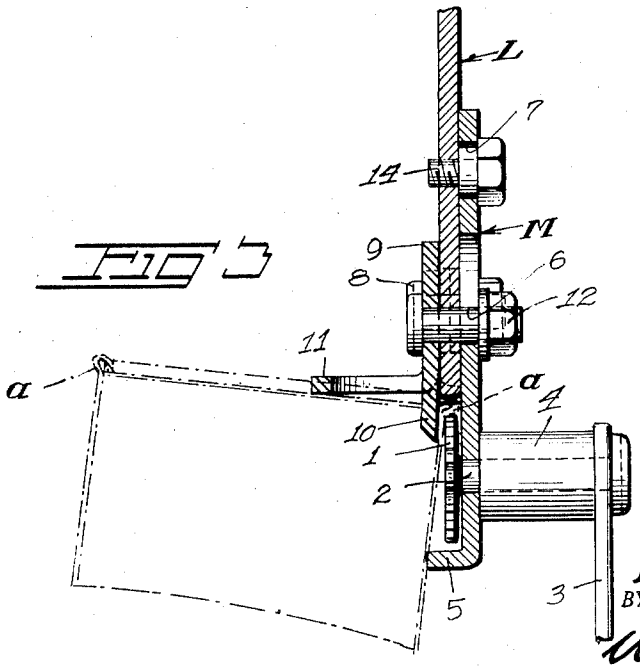


FIG 2

FIG 3



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CAN OPENER

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1 Claim. (Cl. 30—8)

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This invention relates to a can opener and it is primarily an object of the invention to provide a device of this kind which includes drive or traction member and a coacting cutting element assembled in a manner whereby the desired opening of a can may be affected with a minimum of effort.

It is also an object of the invention to provide a device of this kind wherein the cutting element is carried by a swinging lever and wherein the mounting for the swinging lever is one to permit its adjustment into working or release position upon relatively slight movement of the lever.

A still further object of the invention is to provide a device of this kind comprising a supporting member carrying a rotatable traction or feed element and wherein said member in relatively close proximity to the traction or drive member is provided with two perpendicular related slots in which are received laterally disposed parts carried by an operating lever and wherein one of such parts provides an operative connection between the lever and a cutting element so that upon swinging movement of the lever, the cutting element will be adjusted into effective working position with respect to a can or moved into released position.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved can opener whereby certain advantages are attained, as will be hereinafter more fully set forth.

In order that my invention may be better understood, I will now proceed to describe the same with reference to the accompanying drawings, wherein:

Figure 1 is a front elevational view of a can opener constructed in accordance with an embodiment of the invention, the parts being shown in cutting relation.

Figure 2 is a sectional view taken substantially on line 2—2 of Figure 1; and

Figure 3 is an enlarged sectional view taken substantially on line 3—3 of Figure 1, the relation of a can being indicated by broken lines.

As illustrated in the accompanying drawings, the device or can opener comprises a body member M which is illustrated as an elongated flat plate of desired dimensions and configuration and which may be operatively supported by a wall bracket or otherwise as may be preferred. The lower edge of the body member M adjacent to the forward extremity thereof has rotatably mounted thereon, a traction or drive wheel 1, the

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peripheral of which being toothed or knurled to assure effective engagement with the can to be opened in a manner which is believed to be well known. This traction wheel is mounted upon a shaft 2 disposed through the member 1 and provided at the end portion thereof remote from the wheel 1 with an operating crank 3. In the present embodiment of the invention the member 1 carries an outstanding bearing 4 for the mounting of the shaft 2 of the traction or feed member 1.

Directly below the feed member 1, the body member M at its margin is provided with an outstanding guide lip or flange 5 which has direct contact with a peripheral wall of the can to assure the same being in effective position with respect to the device doing a cutting operation.

Directly above the axial center of the traction or feed wheel 1, the body member M is provided with a vertical disposed slot 6 and above such slot 6 the member M is provided with a second slot 7, substantially at right angles to the slot 6. It is to be particularly noted that this slot 7 extends rearwardly of the slot 6 so that in fact the slots 6 and 7 combine to provide what may be generally or broadly termed as an inverted L slot.

Substantially in horizontal longitudinal alinement with the lower end of the slot 6 and at a desired point inwardly thereof, the body member M has pivotally mounted or engaged therewith, as at 8, an extremity of a rock arm 9. This rock arm 9 is at the same side, of course, as the traction or drive wheel 1, and is of a length to extend outwardly therebeyond a slight distance. Directly above the wheel 1, this rock arm 9 is provided with a depending cutting blade 10 which is adapted to penetrate the top wall of the can positioned with respect to the device for opening.

The forward portion of the rock arm 9 at its upper margin is provided with an outwardly directed and substantially perpendicularly related stop member 11 herein disclosed as arcuate with its out bow disposed outwardly and which member bridges the cutting blade 10. It is also to be pointed out that this stop member 11 possesses a certain degree of resiliency or flexibility so that in practice it may be possible to effectively employ the device as a unit with cans of varying sizes within, of course, said limitations.

The forward portion of the rock arm 9 has disposed therethrough a part 12 such as a stud or screw which also extends within the slot 6 and such part or screw 12 is also directed through an adjacent end portion of an elongated oper-

ating lever L whereby the lever L and the rock arm 9 are pivotally engaged. The lever L has a lateral disposed part 14 such as a pin which rides within the slot 7. The lever L is of desired length and extends above the body member M a distance sufficient to permit the same to be readily grasped by a hand of a person when it is desired to effect the opening of a can.

In practice, a can is placed against the body member M bearing against the guide lip or flange 5 with the traction or feed wheel 1 below and in position for direct contact with the chime *a* of the can. The lever L is then pulled forwardly to cause the cutting blade 10 to penetrate the lid or top of the can, after which the traction wheel is rotated resulting in the desired revolving of the can with the resultant cutting of the top or lid. When the lever L is at its limit of the forward movement, it is to be noted that it is past beyond the vertical center of the traction or feed wheel whereby it is assured that the cutting blade 10 will be effectively maintained in an effective working position during the period the can is in rotation.

The proper initial placement of the can is assured by contact of the top or lid to be removed with the stop member 11.

The rock arm 9, at a desired distance inwardly of the blade 10, is provided at its lower margin with an inwardly disposed lip 15 which serves as a stop to prevent the free marginal portion of the can after a cut from passing up between the arm 9 and member M. The lower end of the lever L also acts as a stop for the same purpose.

The stop member 11, when the lever L is pulled forwardly, will bear down on the top end of the can and hold the same in close contact with the drive or traction wheel 1 and thereby further assure the effective operation of such wheel.

It is also to be pointed out that when the member 11 is in engagement with can, it holds

the can effectively in position with respect to the traction wheel 1 and the blade 10, as the member 11, owing to its form and dimensions, will hold the can against rocking during the period the wheel 1 is being rotated.

It has been found in practice, that the guide 11 eliminates the necessity of mounting the arm 9 to the member M for rocking movement, although the rocking mounting is preferred.

From the foregoing description it is thought to be obvious that a can opener constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated.

I claim:

In a can opener, a body member provided with substantially perpendicularly related slots, a rock arm having one end pivotally connected to said body member, a stud extending through one of said slots and connected to the other end of said rock arm, a lever having its lower end pivotally connected to said stud, a pin carried by said lever and projecting through the other of said slots, a cutting blade dependingly carried by said arm, a traction wheel operatively connected to said body member and adapted to engage the can to be opened to rotate said can upon rotation of said traction wheel, and means for rotating said traction wheel.

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