May 5, 1925. 1,536,053

V. E. BAKER

CAN OPENER

Original Filed Feb. 2, 1922

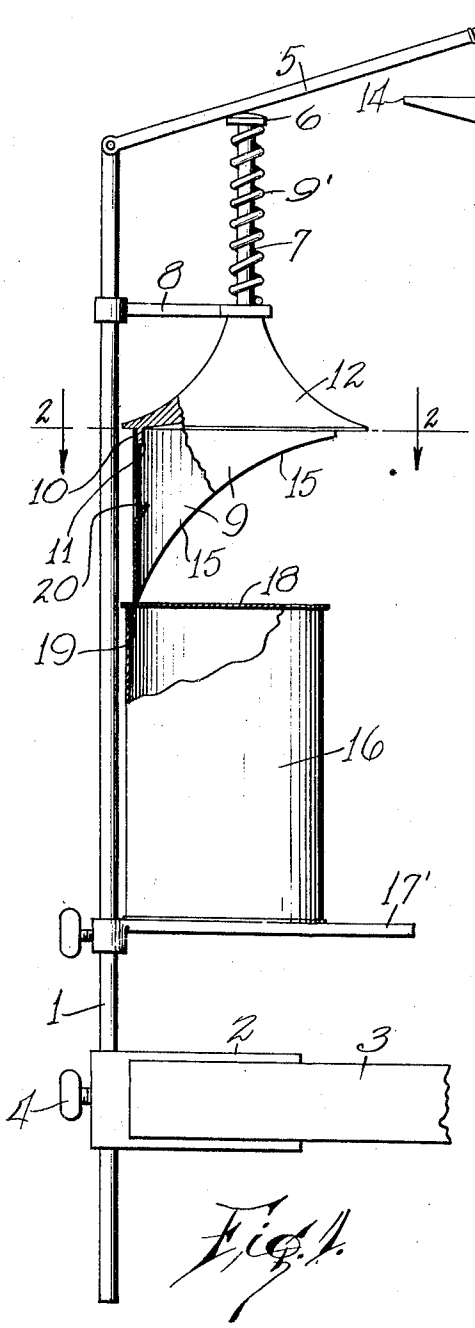


Fig. 1.

Fig. 3.

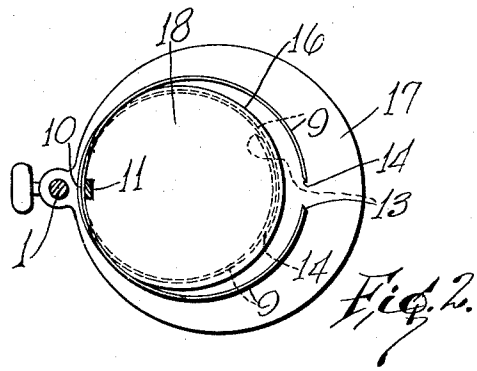


Fig. 2.

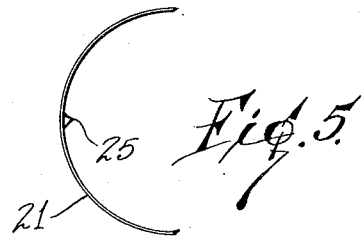


Fig. 5.

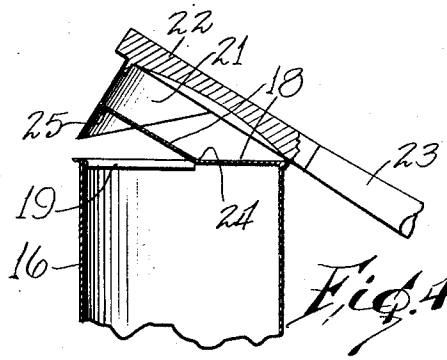


Fig. 4.

INVENTOR

V. E. Baker

BY Munn & Co

ATTORNEYS

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UNITED STATES PATENT OFFICE.

VERNON E. BAKER, OF ELYRIA, OHIO.

CAN OPENER.

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To all whom it may concern:

Be it known that I, VERNON E. BAKER, a citizen of the United States, and a resident of Elyria, in the county of Lorain and State of Ohio, have invented a new and useful Improvement in Can Openers, of which the following is a full, clear, and exact description.

My invention relates to improvements in can openers, and it consists in the combinations, constructions and arrangements herein described and claimed:

An object of my invention is to provide a can opener which is adapted to cut the cover of the can adjacent to the edge thereof and to remove the cover.

A further object of my invention is to provide a device of the character described, which is adapted to cut the cover of any sized can adjacent to the edge thereof in a single operation.

A further object of my invention is to provide a device of the character described which has means for engaging the underside of the severed cover so as to readily remove the cover from the can.

A further object of my invention is to provide a device of the character described, which is simple in construction, efficient for the purpose intended and which is not likely to get out of order easily.

Other objects and advantages will appear in the following specification, and the novel features of the invention will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawings, forming part of this application, in which

Fig. 1 is a side elevation of the device,

Fig. 2 is a section along the line 2—2 of Fig. 1,

Fig. 3 is a plan view of the cutting blade,

Fig. 4 is a sectional view of a modified form of the device, and

Fig. 5 is a view of the cutting blade used in the device illustrated in Fig. 4.

In carrying out my invention, I provide a support 1, which is slidably mounted in a clamp 2, the clamp being secured to a table top 3. A set screw 4 is carried by the clamp 2 and is adapted to adjustably secure the support 1 in the clamp 2. A lever 5 is pivotally secured to the upper end of the support or rod 1, and is adapted to engage with the head 6 of a plunger rod 7, the latter being slidably disposed in a guide member 8, which is carried by the rod 1. The plunger rod 7 is normally urged upwardly by means of the spring 9'.

A can opening blade 9 of the shape shown in Fig. 3 is secured at its central point 10 to a downwardly extending lug 11 which is carried by a circular head 12. The head 12 is rigidly secured to the plunger rod 7 by any means (not shown). The under side of the head 12 is preferably dish-shaped for a purpose hereinafter described. As clearly shown in Fig. 2, the normal position of the blade 9 is ring shaped, the ends thereof being tapered at 13 and 14 so as to readily pass each other when the blade 9 is constricted. The cutting edge 15 of the blade 9 tapers upwardly from the mid point thereof.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood. A can 16 mounted upon an adjustable support 17', which is carried by the rod 1, is so positioned beneath the lowest point 17 of the blade 9 that the point 17 will pierce the cover 18 of the can at a point adjacent to the periphery of the can. It will now be observed that a downward movement of the lever 5 will cause the blade 9 to enter the can 16. Since the blade 9 is secured to the head 2 at its mid-point, the free ends of the blade will swing inwardly to conform to the edge of the cover 18. It will also be noted that the blade 9 will bend the edge of the cut downwardly as at 19, so as to provide a relatively smooth opening to the can 16 when the cover 18 is removed.

As will be noted from the drawing, the can 16 is smaller in diameter than is the diameter of the curved blade 9 when it is in normal position. In Fig. 2, I have shown the position the blade 9 will assume when it has been forced into the can 16. It will be obvious that the ends 13 and 14 of the blade 9 will pass each other so as to provide a circular knife which will entirely sever the cover 18 from the can 16. The blade 9 is provided with an inwardly projecting prong 20, which is disposed directly above the point 17 and which is adapted to engage with the underside of the cover 18 so as to remove the same when the cover has been severed from the can. It will be observed that as the blade 9 is forced downward into the can 16, the tapered cutting edge 15 of the blade will act as a cam surface which causes the blade to conform with the outer edge of the cover 18. As heretofore stated, the underside of

the head 12 is dish-shaped so as to permit the ready movement of the free ends of the blade 9 as the latter is forced downwardly into the can 16.

In Figures 4 and 5, I have shown the slightly modified form of the device in which a cutting blade 21 is semi-circular, and is adapted to cut only a portion of the cover 18 of the can. I also show in this form of the device, the blade 21 as being secured to a body portion 22 which is provided with a handle 23. As clearly shown in Fig. 4, after the blade 21 has been inserted into the can 16, the handle 23 may be swung downwardly so as to bend the cover 18 upwardly about its mid-point 24. This operation is easily accomplished, since the inwardly bent prong 25 of the blade 21 engages with the under side of the cover 18 so as to bend the cover 18 upwardly therewith. In this form of the device, as in the preferred form, the blade 21 is secured at its mid-point to the body portion 22 and is adapted to have its free ends swing inwardly so as to conform with the edge of the cover 18.

I am aware of a device in which a cutter blade, having a beveled cutting edge, is rigidly secured to a body portion. I am not aware, however, of the cutter blade which is secured to a body portion at its mid-point only, thus permitting the free ends thereof to bend to conform to the rim of the can regardless of the size thereof and to shear the top completely out of the can. It is obvious that by providing a cutter blade, which conforms to the outer edge of any can cover to be cut, the device may be used for various sized cans and will quickly sever the cover from the can in a single operation. As heretofore stated, the device is simple in construction and is efficient for the purpose intended.

I claim:

1. A can opener comprising a body portion having a spherical-shaped concave under surface and a circular-shaped knife secured at its mid-point to the under surface of said body portion said concave surface aiding in swinging the sides of said knife into a circle the same diameter as the diameter of the can to be cut.

2. A can opener comprising a body portion having a spherical-shaped concave under surface and a circular-shaped knife secured at its mid-point to the under surface of said body portion, said concave surface aiding in swinging the sides of said knife into a circle the same diameter as the diameter of the can to be cut, the ends of said knife being beveled so as to readily pass each other when the circumference of the can to be cut is less than the length of said knife.

3. A can opener comprising a body portion having a spherical-shaped concave under surface and a circular-shaped knife secured at its mid-point to the under surface of said body portion, said concave surface aiding in swinging the sides of said knife into a circle the same diameter as the diameter of the can to be cut, said knife having a cut portion thereof bent inwardly to constitute a prong.

4. A can opener comprising a body portion having a spherical-shaped concave under surface and a circularly-shaped knife secured at its mid-point to the under surface of said body portion, said concave surface aiding in swinging the sides of said knife into a circle the same diameter as the diameter of the can to be out, the ends of said knife being beveled so as to readily pass each other when the circumference of the can to be cut is less than the length of said knife, said knife having a cut portion thereof bent inwardly to constitute a prong.

VERNON E. BAKER.