

Feb. 9, 1943.

B. L. BRYNJOLFSSON

2,310,210

CAN OPENER

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Fig. 1

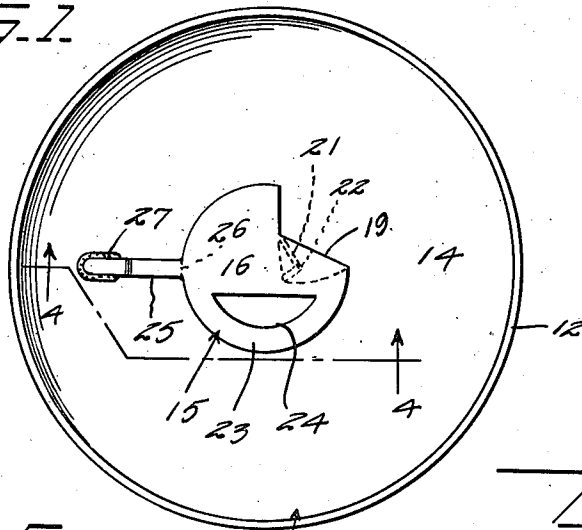


Fig. 5

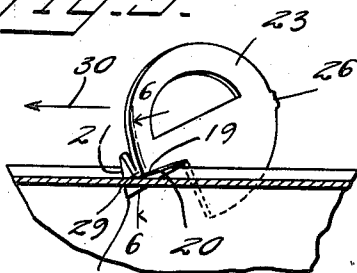
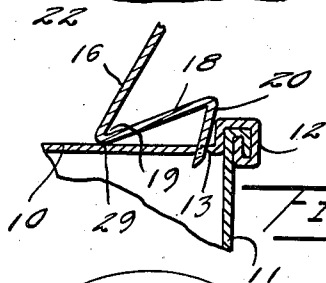


Fig. 6

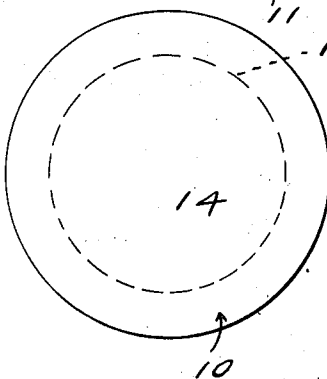


Fig. 7

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Fig. 2

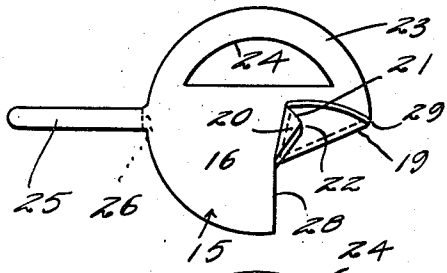
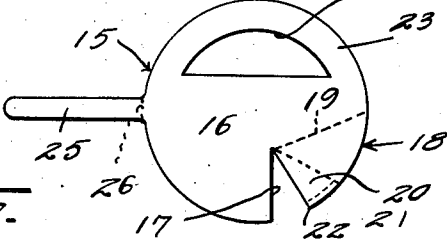
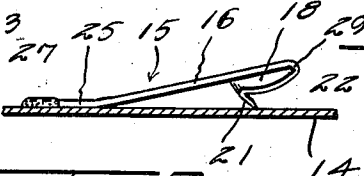


Fig. 3

Fig. 4



UNITED STATES PATENT OFFICE

2,310,210

CAN OPENER

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Application January 29, 1942, Serial No. 428,767

5 Claims. (Cl. 30—22)

This invention relates to improvements in can openers and more particularly to a can opener of very simple construction, capable of being very inexpensively manufactured and which is adapted to be detachably mounted on a can and which is capable of being removed therefrom and utilized for opening the can.

More particularly, it is an aim of the invention to provide a can opener of the above described character and which opens a can by means of a cutting operation and which is capable of being used a number of times.

Other objects and advantages of the invention will hereinafter become more fully apparent from the following description of the drawing, which illustrates a preferred embodiment thereof, and wherein:

Figure 1 is a plan view showing the can opener attached to the end of the can,

Figure 2 is a plan view of the opener before it is applied to the can showing it in an inverted position, relatively to its position of Figure 1,

Figure 3 is a plan view of the blank from which the can opener is formed,

Figure 4 is a sectional view taken substantially along the plane of the line 4—4 of Figure 1,

Figure 5 is an elevational view, partly in section, showing the can opener detached from the can and applied thereto and in an operative position for opening the can,

Figure 6 is an enlarged vertical sectional view taken substantially along the plane of the line 6—6 of Figure 5, and

Figure 7 is a plan view of the blank from which the end of the can, to which the can opener is connected, is formed.

Referring more particularly to the drawing, wherein like reference characters designate like or corresponding parts throughout the different views, 10 designates generally an end of a conventional can which is connected to a can side wall 11 by means of a conventional seam 12 and which is shown exaggerated in size in Figure 6. The end 10 is formed from a blank as shown in Figure 7 which is provided with a weakened portion, as indicated by the dotted line 13, which weakened portion is disposed adjacent to the seam 12, as seen in Figure 6, so that the portion 14 of the end 10 which is within the weakened portion 13 can be cut out to open the end 10 of the can, of which it forms a part. The weakened portion 13 is the only modification in the construction of the can and the end 10 thereof may obviously be of any desired shape and the shape of the weakened portion 13 would in

each instance conform to the shape of the can end 10.

The can opener, designated generally 15, comprises a disk 16 formed of metal which is provided with a sector-shaped cut-out portion 17. As best seen in Figure 3, the portion 18 of the disk 16, which is disposed on one side of the cut-out portion 17, is adapted to be bent upwardly along the dotted line 19. The outer part 20 of the portion 18 is then bent away from the body of the disk 16 and to a position at an acute angle to the remainder of the portion 18. Likewise, said remainder of the portion 18 is disposed at an acute angle to the plane of the disk 16. Part 20 is likewise sector shaped and its outer, wide edge is bevelled on its inner side thereof to form a cutting edge 21 having a sharp point 22 at its outer end.

The half of the disk 16, opposite to the half which is provided with the portions 17 and 18, forms a finger grip 23 provided with an opening 24 which is adapted to be grasped by the thumb and index finger for holding the opener 15 while it is manually operated, as will hereinafter be described. An extension 25 projects from the periphery of the disk 16 at a point remote to the portion 18 and is weakened at its inner end as indicated by the dotted line 26 so that the extension 25 can be broken off at the weakened point 26. The extension 25 is adapted to be secured to the end portion 14 as by soldering, as seen in 27 in Figure 1, and the extension 25, as seen in Figure 4, is disposed at an angle to the plane of the disk 16 so that the disk will be disposed at an angle to the end 10. When the can opener 15 is thus applied to the end 10, the portion 18 is disposed at the under side of the disk and with the point 22 resting on the can end 10, as seen in Figure 4. When thus applied, the actual size of the opener will be such that it will not interfere with a number of cans being stacked one upon the other, each of which is provided with an opener 15 at a corresponding end thereof.

To use opener 15 for removing the portion 14 from the end 10, the disk 16 is broken off from the extension 25 at the point 26 and the recess 28, formed by the cut-out portion 17 and the bent portion 18 is positioned over the rim 12, as seen in Figure 5. The portion 18 is disposed on the inner side of the rim 12 and with the part 20 in substantially a perpendicular position and adjacent to rim 12 and with the remainder of the portion 18 extending downwardly and inwardly therefrom, as seen in Figure 6. This will

position the handle portion 23 in an elevated position and this portion is then grasped between the thumb and index finger and a downward pressure thereon will cause the point 22 to penetrate the can end 10 through a portion of its weakened part 13. The opener 15 is thus pressed downwardly until the portion 29 thereof, as seen in Figure 5, comes in contact with the can end portion 14. The opener 15 is then pushed in the direction indicated by the arrow 30 in Figure 5 so that the cutting edge 21 will constitute the leading edge of the part 20 and will cut the can end 10 along the line 13 until the can end portion 14 is completely severed so that it can be readily removed, and thus open the can end 10. It will thus be seen that the opener 15 is of very simple construction and can be readily applied to and sold with a can and may be readily removed therefrom and utilized, as previously described for opening the can. Furthermore, after having once been used its utility is not impaired and it may obviously be used a number of times for the same purpose. The size of the opener 15 can obviously be varied and various other modifications and changes are contemplated and may likewise be resorted to, provided they fall within the spirit and scope of the invention as hereinafter defined by the appended claims, as only a preferred embodiment thereof has been disclosed.

I claim as my invention:

1. A can opener comprising a body of relatively thin metal having an outwardly bowed edge portion and an outwardly diverging cut-out portion opening outwardly of said edge, a portion of the body, on one side of the cut-out portion, being disposed at an angle to the plane of the body and including an angular portion which projects toward the body, and which is tapered inwardly, and the outer end of the angular portion being relatively wide and sharpened to provide a cutting edge, said body having a finger grip portion, spaced from the angular portions and cut-out portion and adapted to be engaged by the thumb

and index finger, said finger grip portion being provided with an opening.

2. A can opener comprising a body of relatively thin metal having an outwardly bowed edge portion and an outwardly diverging cut-out portion opening outwardly of said edge, a portion of the body, on one side of the cut-out portion, being disposed at an angle to the plane of the body and including an angular portion which projects toward the body, and which is tapered inwardly, and the outer end of the angular portion being relatively wide and sharpened to provide a cutting edge, said body having an extension remotely disposed to said cut-out portion and adapted to be connected to a can for mounting the opener thereon.

3. A can opener comprising a body of relatively thin metal having an outwardly bowed edge portion and an outwardly diverging cut-out portion opening outwardly of said edge, a portion of the body, on one side of the cut-out portion, being disposed at an angle to the plane of the body and including an angular portion which projects toward the body, and which is tapered inwardly, and the outer end of the angular portion being relatively wide and sharpened to provide a cutting edge, said cut-out portion and the first mentioned angular portion forming a recess in body adapted to receive the rim of a can for positioning the cutting edge in engagement with an end of the can.

4. A can opener comprising a metal disk, a folded portion formed from a part of the disk and disposed at an acute angle thereto, and forming an outwardly opening recess in the disk, and said folded portion including a turned back part having an outer sharpened end forming a cutting edge.

5. A can opener as in claim 4, an extension projecting from the disk and having a weakened portion for severing the extension from the disk, said extension being adapted to be secured to a can for detachably connecting the disk thereto.

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