

May 26, 1925.

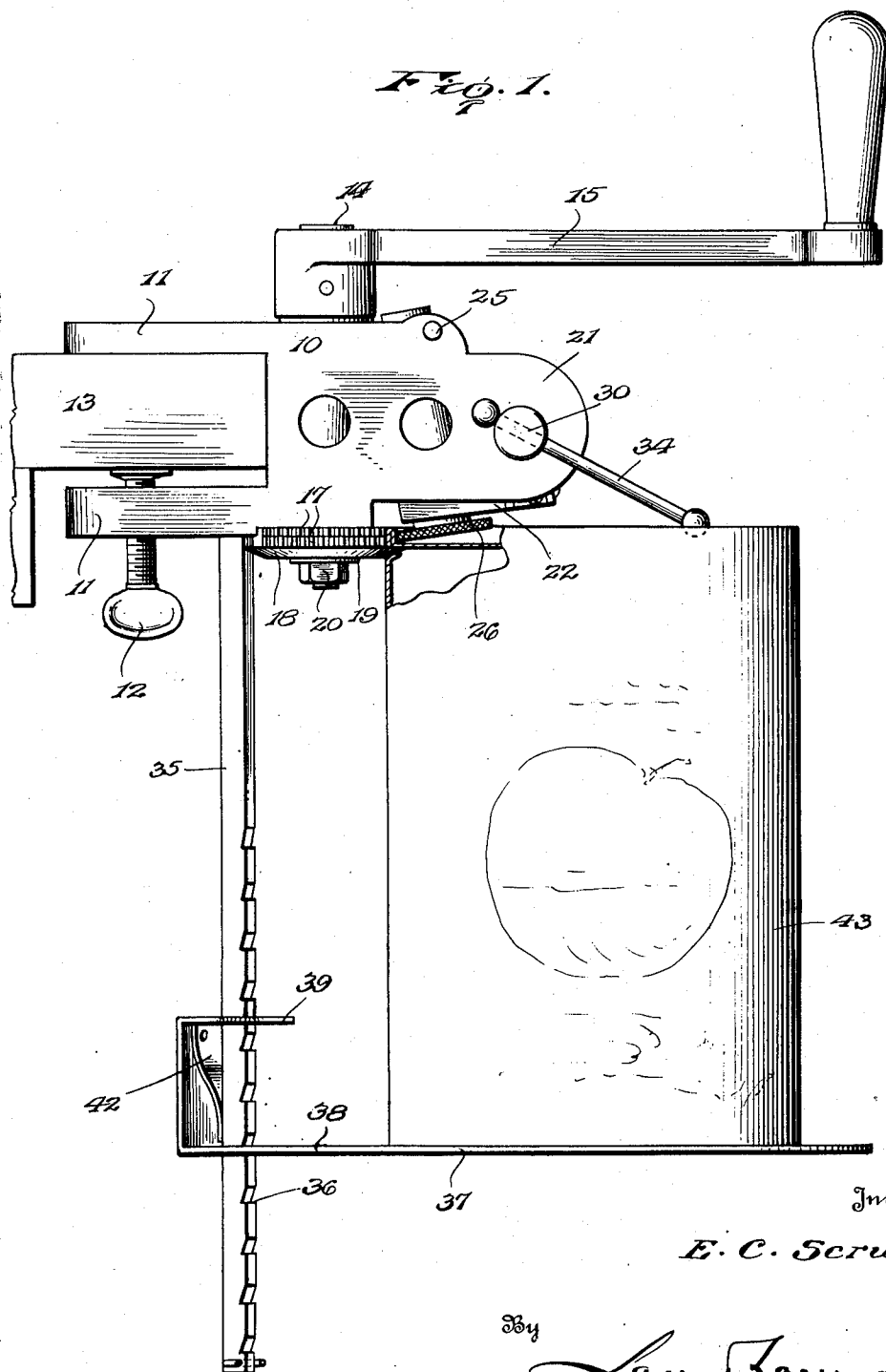
E. C. SCRUGGS

CAN OPENER

Filed Nov. 7, 1922

2 Sheets-Sheet 1

Fig. 1.



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Fig. 2.

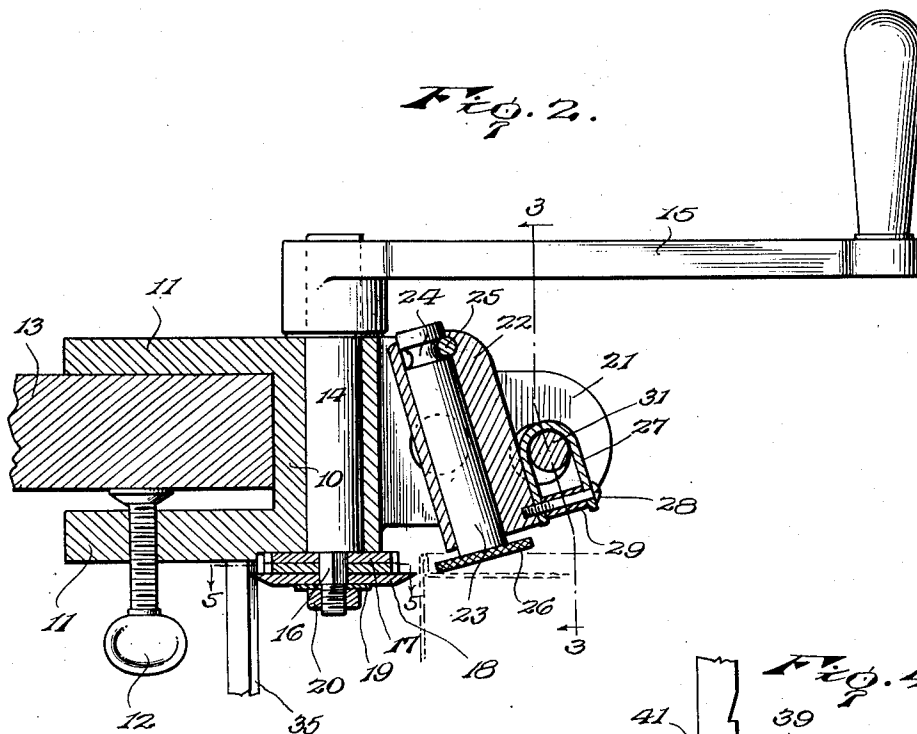


Fig. 3.

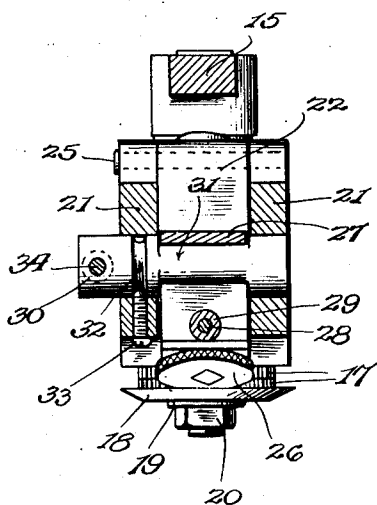


Fig. 4.

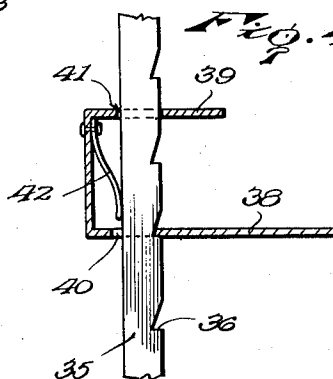
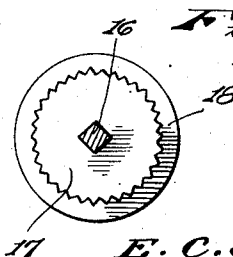


Fig. 5.



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UNITED STATES PATENT OFFICE.

EDWARD C. SCRUGGS, OF NASHVILLE, TENNESSEE.

CAN OPENER.

Application filed November 7, 1922. Serial No. 599,533.

To all whom it may concern:

Be it known that I, EDWARD C. SCRUGGS, citizen of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented certain new and useful Improvements in Can Openers, of which the following is a specification.

This invention relates to an improved can opener and seeks, as one of its principal objects, to provide a device of this character which will be adapted to cut the side wall of a can and completely sever the top of the can therefrom.

The invention has as a further object to provide a circular knife and wherein, as the knife is turned for severing the side wall of the can, the can will be rotated and thus fed to the knife.

Another object of the invention is to provide a can opener embodying feeding discs in conjunction with the knife for rotating the can to accomplish the cutting operation.

A still further object of the invention is to provide a device wherein one of the feeding discs may be rocked for pressing the side wall of the can against the knife so that the knife will be caused to initially pierce said wall when the cutting operation may progress.

And the invention has as a still further object to provide a device embodying a shelf for supporting the can during the cutting operation and wherein said shelf may be adjusted to accommodate cans of different heights.

Other and incidental objects will appear hereinafter.

In the drawings:

Figure 1 is a side elevation of my improved can opener showing a conventional can in connection therewith,

Figure 2 is a fragmentary sectional view through the body member of the device,

Figure 3 is a vertical sectional view on the line 3—3 of Figure 2, looking in the direction of the arrows,

Figure 4 is a detail sectional view particularly showing the mounting of the can supporting shelf of the device, and

Figure 5 is a detail sectional view on the

line 5—5 of Figure 2, looking in the direction of the arrows.

In carrying the invention into effect, I employ a body member including a vertically disposed bearing 10 and projecting laterally from the bearing at one side thereof are spaced jaws 11 through the lowermost of which is threaded a clamp screw 12. As will be well understood, the jaws 11 may, as suggested in the drawings, be arranged to straddle one margin of a table top or the like, as conventionally illustrated at 13, when the clamp screw 12 may be adjusted for rigidly connecting the body member with the table. Journaled through the bearing 10 is a shaft 14 to the upper end of which is fixed a handle 15 and formed on the shaft at its lower end is a reduced squared terminal 16. Fitting said terminal to abut the adjacent end of the shaft are superposed feed discs 17 provided, as particularly shown in Figure 5, with peripheral teeth, and overlying the lowermost of said discs is a circular knife 18, the outer margin of which is beveled at its lower side to define a cutting edge at the periphery of the knife. Overlying the knife is a washer 19 and threaded upon the lower end of the terminal 16 is a nut 20 clamping the knife and feed discs in position.

Projecting from the bearings 10 at the side thereof opposite the jaws 11, are spaced vertically disposed ears 21 and mounted to rock between said ears is a bearing block 22. Journaled through said block is a vertically disposed shaft 23 provided near its upper end with an annular groove 24 and extending through the ears and through the upper end of the block 22 is a pivot pin 25 lying at the forward side of the shaft 23 to project into said groove. Thus, the pin 25 not only serves to pivotally support the bearing block 22 but also serves to rotatably connect the shaft 23 with said block. At its lower end, the shaft carries a feed disc 26 the periphery of which is milled or otherwise roughened. Mounted upon the lower end of the block 22 at its forward side is a U-shaped plate or yoke 27 through the lower ends of which extends a screw 28 threaded

into said block for connecting the yoke therewith and surrounding the screw between the ends of the yoke is a sleeve 29 spacing the ends of the yoke apart. Journaled upon the ears 21 to project through said yoke is, as particularly shown in Figure 3, a cam shaft 30, which is provided with a cam 31 to coact with the yoke and formed in said shaft near one end thereof is an annular groove 32. Threaded upwardly through the adjacent one of the ears 21 is a screw 33 extending into said groove rotatably connecting the shaft with the ears and mounted upon the shaft at its adjacent end is a handle 34. Depending from the lowermost of the jaws 11 of the device is a vertically disposed rod 35 at the forward edge of which are formed teeth 36 and slidable upon the rod is a shelf 37 having a reduced shank 38 bent to define a terminal 39 lying in spaced parallel relation to the shank thereabove. As particularly brought out in Figure 4, the shank and said terminal are provided with alined slots 40 and 41 to snugly but slidably receive the rod and arranged to coact with the rod at its rear edge is a spring 42. As will be observed, the slot 40 is elongated so that the shank of the shelf may be rocked upwardly out of engagement with any one of the teeth 36 of the rod so that the shelf may be slidably adjusted vertically upon the rod when, upon release of the shelf, the spring 42 will return the shelf to horizontal position coacting with one of said teeth to be sustained thereby.

In order that the manner in which my improved can opener is employed may be clearly understood, I have, in the drawings, shown how the device is adapted to operate upon a conventional can, indicated at 43. Initially, the handle 34 is swung for rotating the cam shaft 30 until the cam 31 is caused to cooperate with the yoke 27 for rocking the block 22 outwardly and consequently swinging the feed disc 26 away from the feed discs 17. The can is then positioned upon the shelf to dispose the annular lip at the upper end of the can between the discs 17 and the disc 26 when the side wall of the can will confront the knife, the shelf 37 being adjusted to support the can at an elevation having the upper end wall thereof disposed above the knife. The handle 34 of the cam shaft 30 is then swung in the opposite direction when the cam 31 will be caused to cooperate with the yoke 27 for swinging the block 22 inwardly so that the feed disc 26 will be moved to engage the inner side of the lip at the upper end of the can. Accordingly, as the swinging movement of the handle 34 is continued, the side wall of the can will be advanced against the knife until, as shown in Figure 1, the knife will be caused to pierce said wall below the top wall of the can while the lip at the

upper end of the can will be moved to engage the feed discs 17. Accordingly, these discs will cooperate with said lip at its outer side while the feed disc 26 will cooperate with the lip at its inner side pressing the lip against the feed discs 17 so that when the handle 15 is swung for rotating the knife, the can will be rotated coincidentally. Thus, by turning the handle until the can 43 has been rotated a complete revolution, the side wall of the can may be cut to completely sever the top wall therefrom.

Having thus described the invention, what is claimed as new is:

1. A can opener including a body member, a rotatable knife carried thereby, feeding means associated with said knife, a bearing block, a shaft rotatable upon said block, means pivotally connecting the block with the body member and also rotatably connecting the shaft with said block, feeding means carried by said shaft, and means for rocking the block to clamp the upper margin of the side wall of a can between said feeding means.

2. A can opener including a body member, a rotatable knife carried thereby, feeding means associated with said knife, a bearing block, a shaft journaled upon the block and provided with a groove, a pin pivotally connecting the block with the body member and engaged in said groove rotatably connecting the shaft with the block, feeding means carried by the shaft, and means for rocking the block to clamp the upper margin of the side wall of a can between said feeding means.

3. A can opener including a body member, a shaft journaled thereon and provided at its lower end with a reduced squared terminal defining a shoulder at its base, a feeding disc fitting over said terminal, a circular knife fitting over said terminal to abut the disc, means upon the terminal clamping the disc and knife between said shoulder and said means, a block pivoted near one end upon the body member, a shaft rotatable upon said block, a feeding disc carried by the latter shaft, and means to cooperate with the block near its opposite end for rocking the block to clamp the upper margin of the top wall of a can between said discs.

4. A can opener including a body member with supporting means, a rotatable knife carried by the body member, coacting discs associated with said knife, a rod depending from the body member and provided with teeth, a shelf having a shank bent to define a terminal lying in spaced relation to the shank, the shank and said terminal being formed with openings freely receiving said rod, and a spring bearing between the shank and rod tending to cant the shank into engagement with said teeth.

5. A can opener including a body mem-

ber, a rotatable knife carried thereby, feeding means associated with the knife, a bearing block, a pivot pin swingingly connecting the block near one end with the body member, a shaft rotatable upon said block, feeding means carried by said shaft to cooperate with said first mentioned feeding means, and means to cooperate with the block near its opposite end for rocking the block to clamp the upper margin of the side wall of a can between said feeding means.

In testimony whereof I affix my signature.

EDWARD C. SCRUGGS. [L. S.]