Nov. 24, 1931. F. F. GIRARD 1,833,743

CAN OPENER

Filed March 13, 1931

Fig. 1.

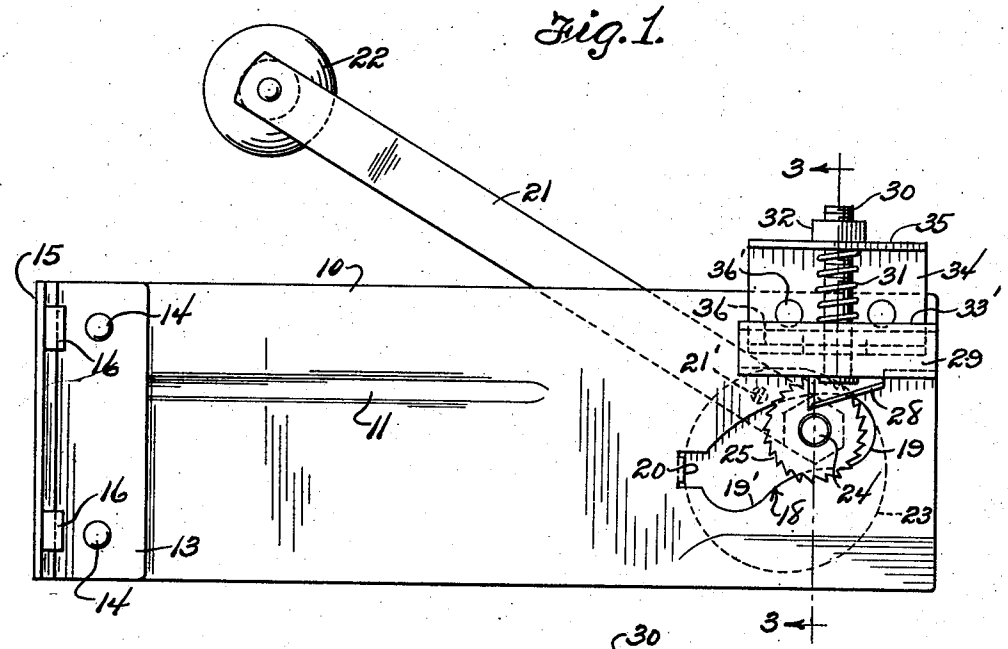



Fig. 2.

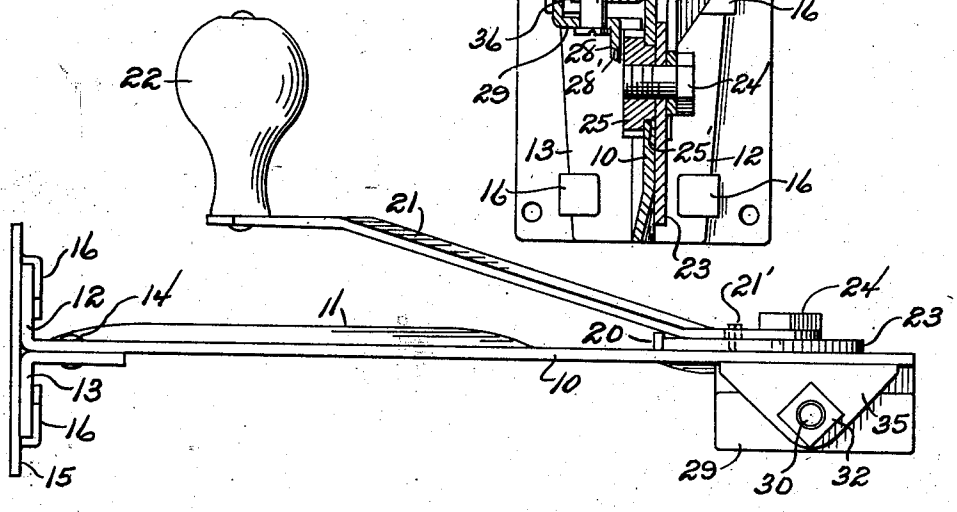



Fig. 3.




Fred F. Girard
INVENTOR

BY Victor J. Evans and Co.
ATTORNEYS

Patented Nov. 24, 1931 1,833,743

# UNITED STATES PATENT OFFICE

FRED F. GIRARD, OF WASHINGTONVILLE, OHIO

## CAN OPENER

Application filed March 13, 1931. Serial No. 522,357.

The object of this invention is to provide a can opening device of the type disclosed in my U. S. Patent No. 1,742,140,—the present construction involving certain important improvements with reference to construction, assembly and operation, and showing horizontal mounting.

With the foregoing and other objects in view, the invention consists in the novel features of construction and in the novel arrangement of the elements herein disclosed, it being understood that modifications, alterations or changes may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings forming part of this application:—

Figure 1 shows the device in elevation, a bracket for mounting the appliance on a stationary element appearing at the left of the view.

Figure 2 is a view in elevation, the view being from another angle, as compared with Figure 1.

Figure 3 constitutes a section on line 3—3 of Figure 1.

A main supporting element comprises a frame 10 which may be reinforced by a longitudinal rib 11, the plate or strip of material being formed by dies or the like, and said plate 10 having a laterally deflected end portion 12 adapted to cooperate with an angle element 13 secured by means of rivets or the like 14 to the main plate.

In order to support the structure just referred to and the operative elements, on a stationary device, I provide a bracket comprising a plate 15 having ears, such as 16, struck up therefrom, and these ears may be spaced, so that the upper pair, considered in Figures 1 and 3, will be farther apart than the lower pair. The portions 12 and 13 will, therefore, have inclined edges, so that the complete end portion of the tool-supporting device will represent a tapered foot or end member, as will be observed in Figure 3.

Plate 10 is provided with a cam slot 18 having a forward portion 19, and a portion 19′ toward the opposite end, or the inner end of the opening. A lug is provided by cutting away a portion of the metal at the extreme ends of the slot, and providing a struck-up member, as shown at 20.

A crank arm 21 is provided with a handle 22, and movable with this crank element is a cam 23 secured to the crank arm by means of a screw or the like 24. A toothed wheel 25 is also secured by screw or similar element 24, and the structure comprising the elements 21, 23, 24, 25, moves as a unit. Wheel 25 has a central boss or hub portion 25′, and this portion engages the edge of the cam slot comprising the portions 19, 19′—the crank arm and cam being on one side of the plate 10, and the wheel 25 being on the opposite side. In Figure 1, I have shown a screw 21′ passing through arm 21, and designed to enter the body of member 23, insuring simultaneous movement of these elements.

The cutter 28 may be provided with a beveled edge at 28′, and this cutter is formed by deflecting a portion of the pressure plate 29 which is under resilient action, because of the mounting thereof shown in Figures 1 and 3, the mounting elements comprising screw or bolt 30 and coiled spring 31 surrounding the bolt, the end of the element last named being retained by a nut or the like 32. The pressure plate is upwardly deflected at 33, and laterally deflected at 33′, and the portion last named is provided with an aperture through which the bolt 30 passes.

A guiding element or bracket includes a portion 34, deflected laterally at 35 and 36, and these portions are apertured for the accommodation of the bolt 30. The bracket thus described is retained by means of rivets or other securing devices 36′.

The operation is similar to that disclosed in connection with my previous patent, referred to by number, but the special mounting of some of the elements, including the cutter, the crank arm, and the rotatable means, is important. The bead or annular flange at the end of the can is engaged by the toothed wheel 25, and upon the rotation of the crank arm 21 toward the right in Figure 1, the hub portion 25′ rides upwardly in the cam slot, from the end portion 19′ thereof toward the end portion 19, so that positive engagement

between the bead and the cutter 28 is produced. The can is rotated between the toothed wheel and the cutter which is itself resiliently mounted, and in connection with element 29, provides a pressure device. Adjustment of the spring 31 by the nut or equivalent device 32 makes it possible to produce any pressure desired, on cutting element. The latter is mounted so that it is not susceptible of displacement or variation in action, but it can nevertheless be removed for the purpose of sharpening the blade represented by the beveled portion 28'.

What is claimed is:—

1. In a can opener, a rotatable toothed wheel, means for mechanically moving said wheel in a curved path to operative position, a combined cutter and pressure device mounted adjacent to the toothed wheel and permitting the cutter to extend across the path of movement of said wheel, the pressure plate including a channel bar having its flanged portions apertured, means for guiding the channel bar, said means last named extending through the apertures of the bar, and resilient means influencing the movement of the bar and cutter.

2. A structure comprising the elements of claim 1, and a plate having edge flanges thereon one of which extends between the flanges of the channel bar, said guiding means for the channel bar being mounted in the flanges of the plate.

In testimony whereof I affix my signature.

FRED F. GIRARD.