C. A. DARRAH.

CAN OPENER.

APPLICATION FILED JUNE 4, 1917.

1,242,329.

Patented Oct. 9, 1917.

2 SHEETS—SHEET 1.

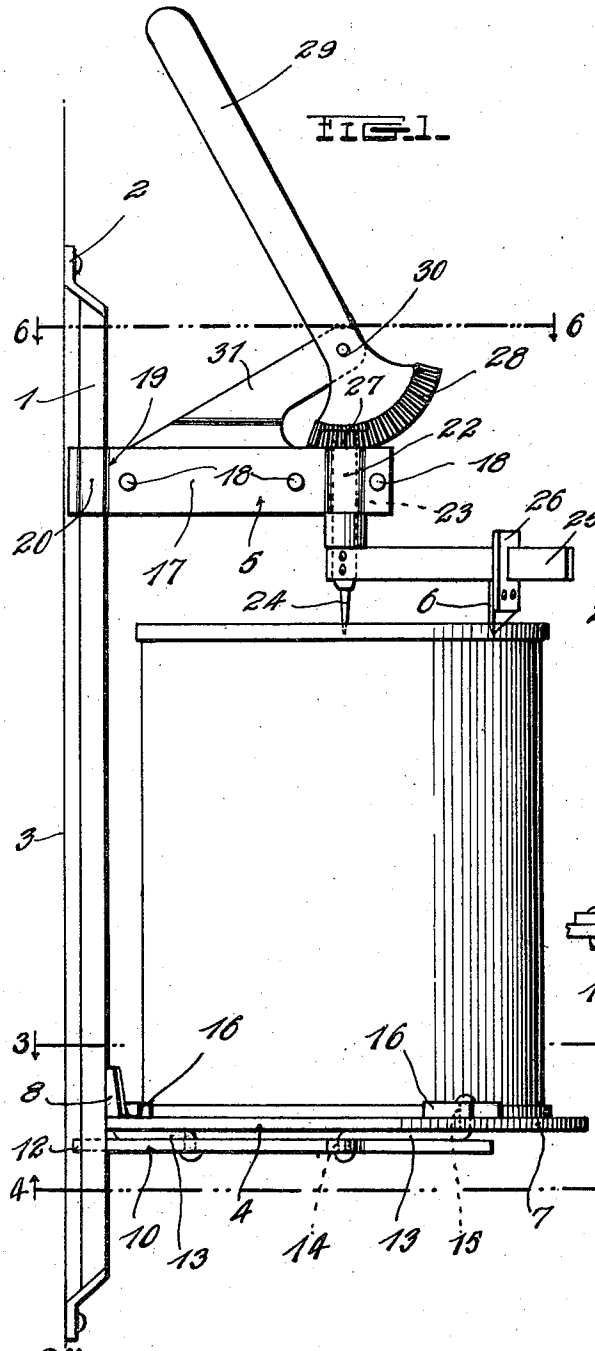


FIG. 1.

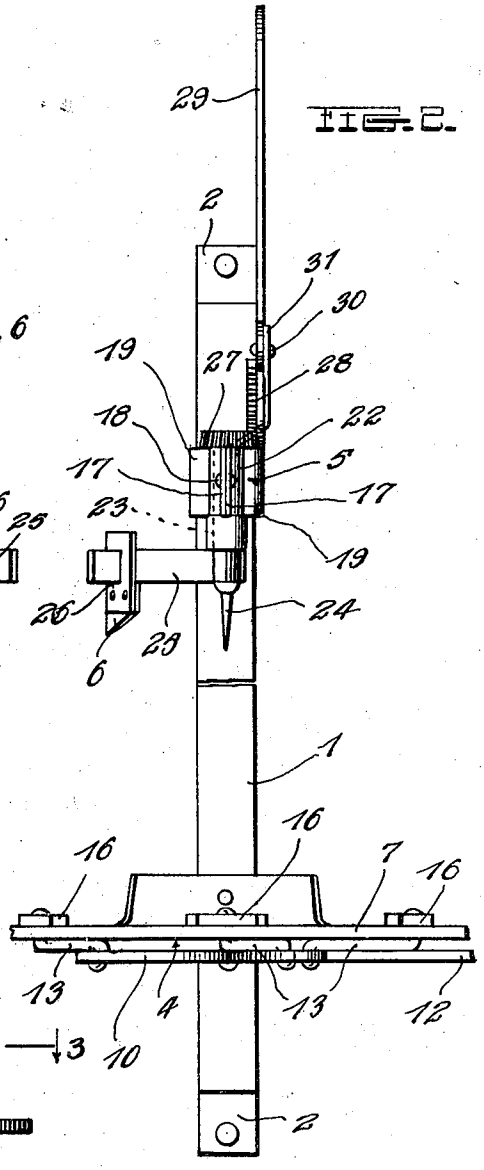


FIG. 2.

Witness

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2 SHEETS—SHEET 2.

FIG. 3.

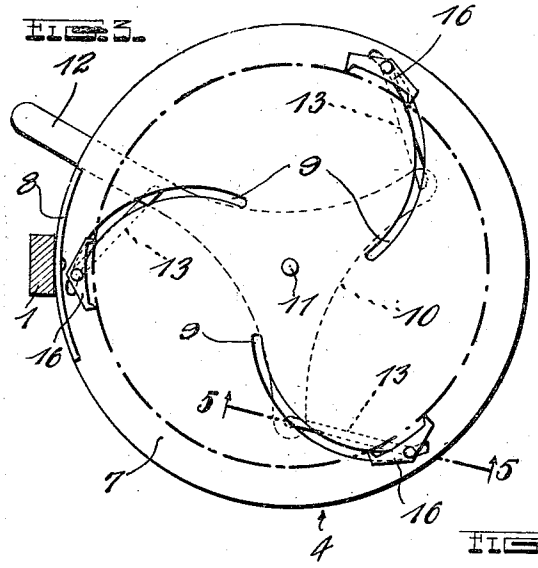


FIG. 7.

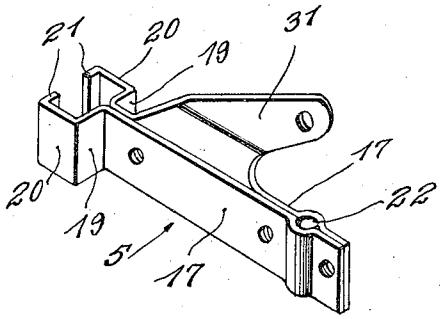


FIG. 4.

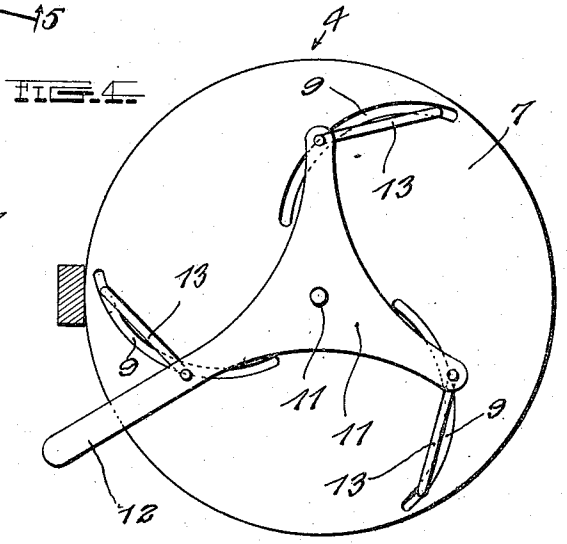


FIG. 5.

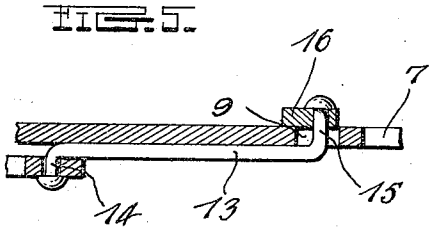


FIG. 6.

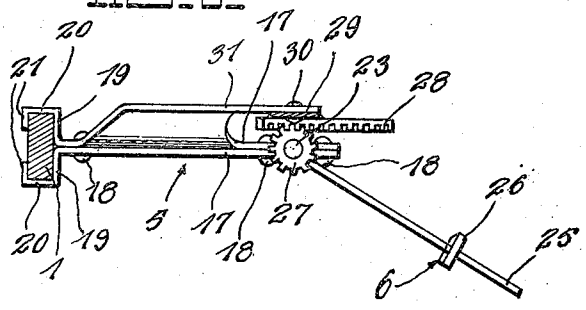
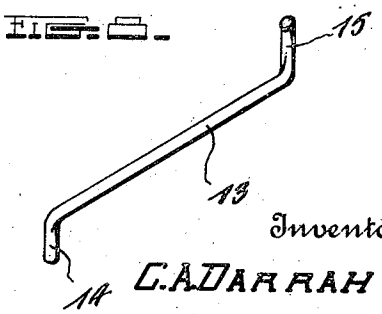


FIG. 8.



Witness

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UNITED STATES PATENT OFFICE.

CHARLES AARON DARRAH, OF OTTUMWA, IOWA.

CAN-OPENER.

1,242,329. Specification of Letters Patent. Patented Oct. 9, 1917.

Application filed June 4, 1917. Serial No. 172,737.

To all whom it may concern:

Be it known that I, CHARLES A. DARRAH, a citizen of the United States, residing at Ottumwa, in the county of Wapello and State of Iowa, have invented certain new and useful Improvements in Can-Openers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention which relates to improvements in can openers, has for its principal object to provide a device of this character designed primarily for opening cans quickly and easily in such places as restaurants and hotels in which a great number of different sized cans must be opened daily.

In carrying out the above object I provide a clamp to hold the can and a bracket adjustable vertically above said clamp and carrying the can opening means, further objects being to construct said clamp and bracket as to permit them to be readily formed of stamped sheet metal, this mode of production being less expensive than others.

With the foregoing general objects in view, the invention resides in the novel features of construction and unique combinations of parts to be hereinafter fully described and claimed, the descriptive matter being supplemented by the accompanying drawings which constitute a part of this application and in which:

Figure 1 is a side elevation of the improved can opener showing the same in use;

Fig. 2 is a front elevation of Fig. 1;

Figs. 3 and 4 are horizontal sections on the planes of the lines 3—3 and 4—4 of Fig. 1;

Fig. 5 is a detail vertical section on the plane of the line 5—5 of Fig. 3;

Fig. 6 is a horizontal section on the plane indicated by the line 6—6 of Fig. 1;

Fig. 7 is a perspective view of the vertically adjustable bracket carrying the can opening means; and

Fig. 8 is a similar view of one of the links for operating the can clamping jaws.

In the drawings above briefly described, the numeral 1 designates a vertical standard having laterally extending feet 2 at its upper and lower ends secured to a vertical wall or the like 3, said standard being by preference stamped from sheet metal as shown. A can clamp 4 is supported rigidly by the standard 1, near its lower end, whereas a bracket 5 is mounted slidably on said standard above the clamp and carries a can opening blade 6 and means for operating the same.

Clamp 4 includes a preferably circular can supporting plate 7 rigidly secured and braced at 8 to the standard 1 and having a plurality of slots 9 disposed substantially in a tangential manner although said slots will in most cases be arcuate as shown. A triangular lever 10 is disposed beneath plate 7 and is pivoted at its center to the center of said plate as shown at 11, said lever 10 having a handle 12 whereby it may be turned around its pivot. Wire links 13 are bent downwardly at one end at 14 and upset in openings in the three corners of the lever 10, whereas the other ends of said links are bent upwardly at 15 through the slots 9, said links being pivoted, by means of said upwardly bent ends, to flat preferably sheet metal jaws 16 which rest on the plate 7. By this construction, it will be observed that swinging of the handle 12 in one direction, will so move the links 13 as to cause the jaws 16 to travel inwardly above the slots 9, whereas operation of said handle in the other direction will move said jaws outwardly. It will thus be seen that cans of various sizes may be clamped in the plate 7 while the opening means is being actuated, it being understood that the operator must hold the handle 12 in operative position while the opening process is being carried out.

The bracket 5 is preferably formed of two horizontally elongated sheet metal plates 17 secured together by rivets or the like 18, one end of each plate being bent laterally outward at 19 for contact with the front side of the standard 1, then rearwardly at 20 for engagement with the edge of said standard, and finally inward at 21 to form a flange contacting with the rear side of the standard. The formations 19, 20 and 21 of the two plates 17 constitute a slide which permits the bracket 5 to move vertically according to the height of the can to be opened.

The ends of the plates 17 remote from those just described, are bulged outwardly at 22 to form a bearing for a vertical shaft 23, said shaft having on its lower end a prong 24 to penetrate the center of the can top, while secured to said shaft directly above

the prong is a laterally extending arm 25 upon which a slide 26 is mounted, said slide carrying the blade 6 above described. A gear 27 is carried by the upper end of shaft 23 and meshes with a gear segment 28 on the lower end of a vertical lever 29 which is fulcrumed at 30 to an inclined arm 31 which rises from and is formed integrally with the upper edge of one of the plates 17, said arm being offset from the plane of said plates as shown most clearly in Fig. 7.

By the construction just described, it is obvious that after clamping the can between the several jaws 16, the bracket 5 may be lowered so that the prong 24 and blade 6 both penetrate the top of said can, said blade being positioned adjacent the edge of said top. This having been done, the lever 29 is so operated as to cause segment 28 and gear 27 to rotate the shaft 23, thus swinging the arm 25 on a circular path and similarly moving the blade to completely cut the top of the can from the body thereof.

From the foregoing, taken in connection with the accompanying drawings, it will be observed that I have provided a can opener which will be highly efficient and durable, yet one which may be easily and inexpensively manufactured, particular emphasis being laid upon the fact that practically all parts of the device are formed of sheet metal stampings whereby manufacture is greatly facilitated. Since the particular construction shown is of great advantage, it constitutes the preferred form of the improved can opener, but it is to be understood that within the scope of the invention as claimed, numerous changes may be made without sacrificing the principal advantages.

I claim:

1. A can opener comprising a vertical standard, a clamp carried by the lower end thereof for gripping the lower end of a can, a bracket slidable vertically on said standard and consisting of a pair of horizontally elongated metal plates standing on edge and secured together, one end of said plates being bent laterally outward for contact with the front side of the standard, then rearwardly for engagement with the edges thereof, and then inwardly for contact with the rear side of said standard, the other ends of said plates being bulged outwardly to form a vertical bearing, an upright shaft rotatably mounted in said bearing and having a prong on its lower end to penetrate the center of the can top, a laterally extending arm on said shaft above said prong, a can opening blade slidable along said arm, a pinion secured on the upper end of said shaft, an operating gear meshing with said segment, and an arm rising from and formed integrally with the upper edge of one of said plates and serving as a support for said gear.

2. A can opener comprising a vertical standard, can opening means including a slide mounted on the upper portion of said standard, and a can clamp consisting of a horizontal plate rigidly secured to and projecting forwardly from the lower end of said standard, said plate having a plurality of slots disposed substantially on tangential lines, can gripping jaws resting on said plate and extending across said slots, a horizontally swinging jaw-operating lever below said plate and fulcrumed to the center thereof, and links connecting said lever and jaws and having vertical portions passing slidably through said slots.

3. A can opener comprising a vertical standard, can opening means having a slide mounted on the upper portion of said standard, a can clamp consisting of a horizontal metal plate extending forwardly from the lower end of said standard and rigidly secured thereto, said plate having a plurality of slots disposed substantially on tangential lines, a lever fulcrumed to the center of said plate and located below the latter, horizontal wire links below said plate and having one end bent upwardly through the slots thereof, the other ends of said links being bent downwardly through openings in said lever, and can gripping jaws resting on said plate and mounted on said upwardly bent ends of the links.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

CHARLES AARON DARRAH.

Witnesses:

LORENZO L. VINSEN,

LLOYD L. DUKE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."