

No. 606,805.

Patented July 5, 1898.

F. E. GOWEN.
CAN OPENER.

(Application filed July 28, 1897.)

(No Model.)

Fig. 1.

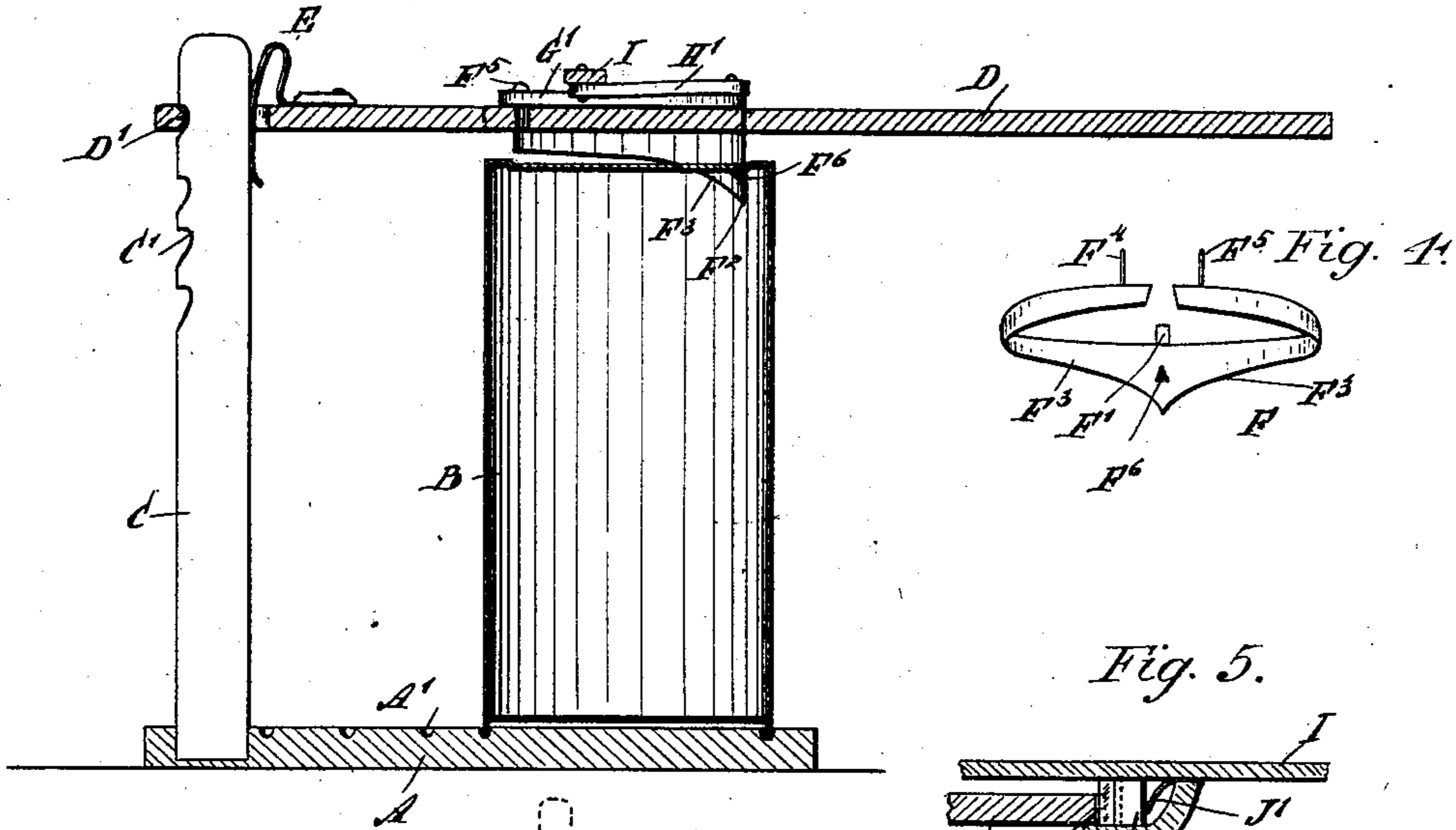


Fig. 5.

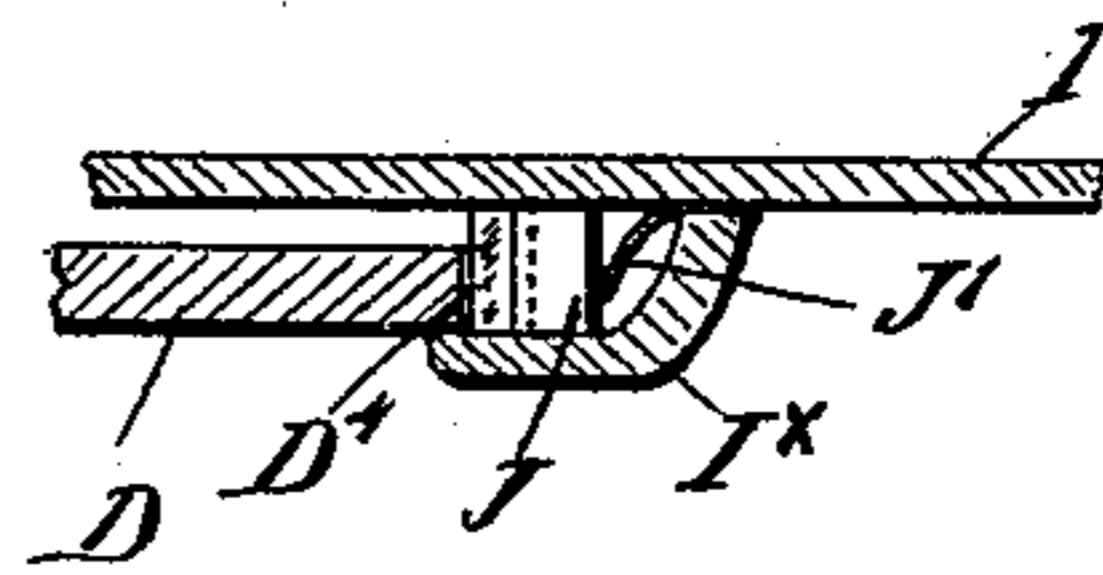


Fig. 2.

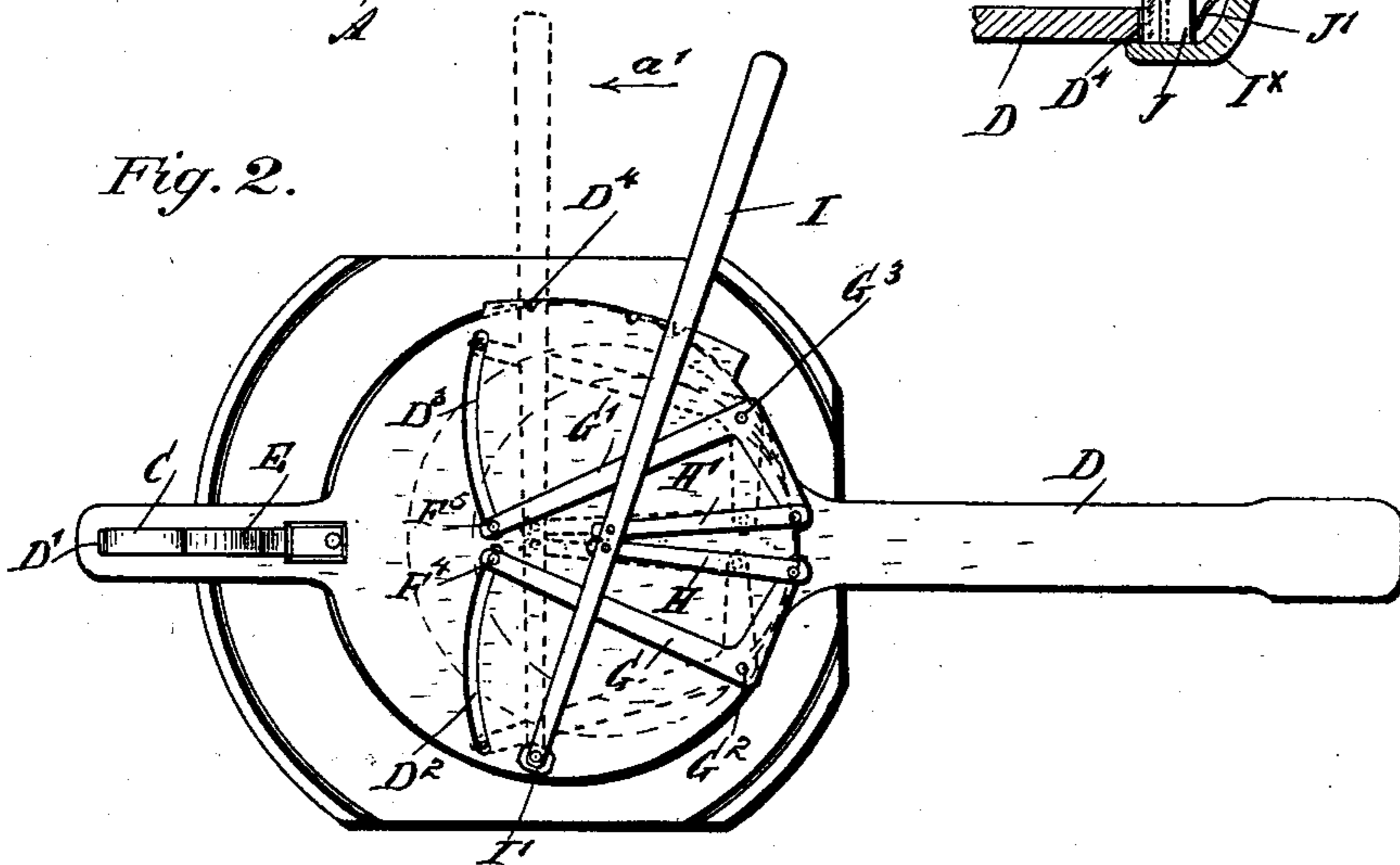
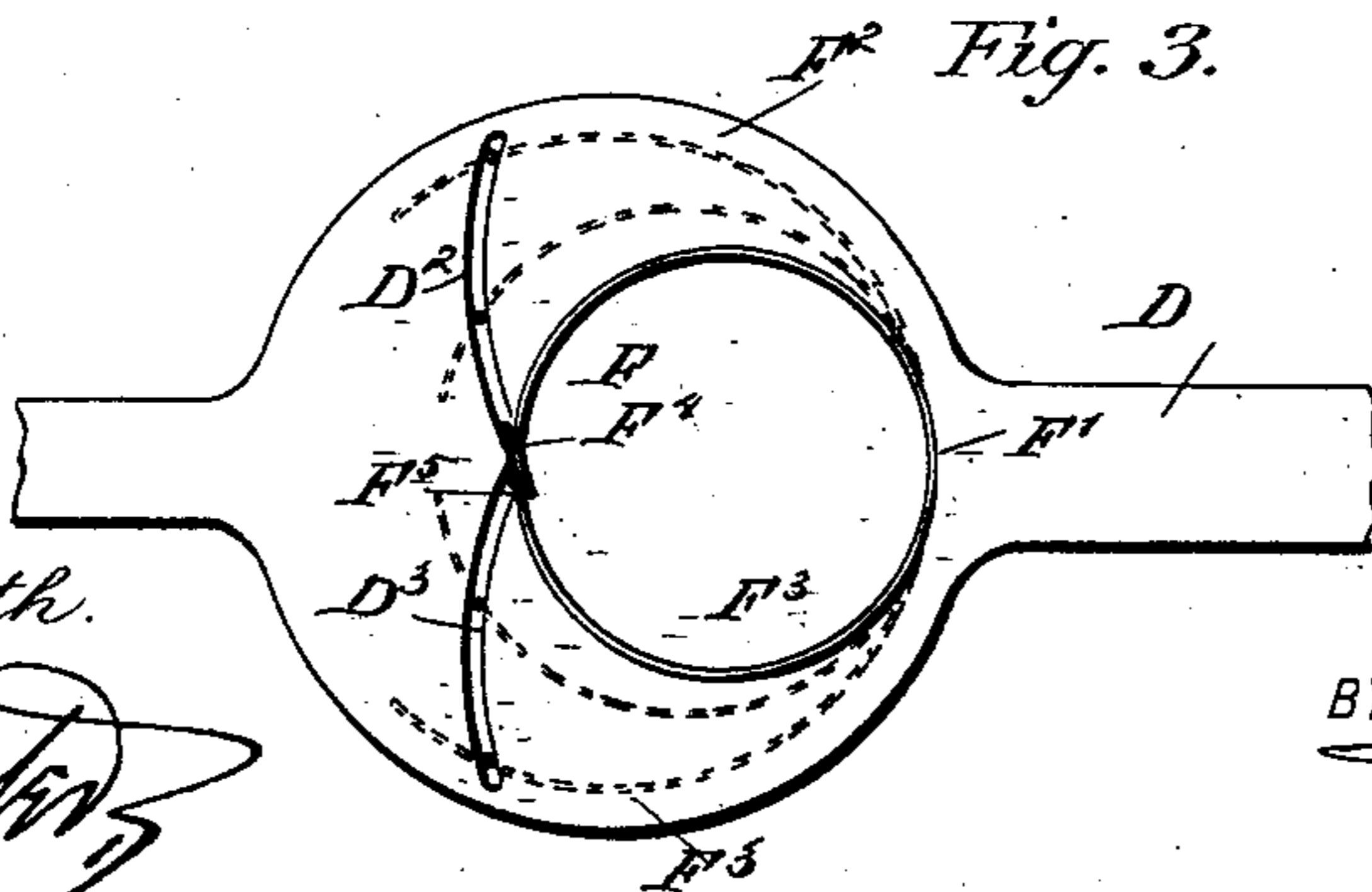


Fig. 3.



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FRANK E. GOWEN, OF NORRIE, COLORADO.

CAN-OPENER.

SPECIFICATION forming part of Letters Patent No. 606,805, dated July 5, 1898.

Application filed July 28, 1897. Serial No. 646,232. (No model.)

To all whom it may concern:

Be it known that I, FRANK E. GOWEN, of Norrie, in the county of Pitkin and State of Colorado, have invented certain new and useful Improvements in Can-Openers, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved can-opener designed for use in households, hotels, and other places and arranged for adjustment to render the device serviceable for conveniently and quickly opening various-sized cans and without danger of the operator soiling or injuring the hands.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of the improvement. Fig. 2 is a plan view of the same. Fig. 3 is an inverted plan view of the cutting device. Fig. 4 is a perspective view of the cutter, and Fig. 5 is a transverse section of the lock for the cutter-adjusting device.

The improved can-opener is provided with a base A, formed on its top surface with a series of eccentric annular recesses A' for the reception of the lower ends of cans B of various sizes to support the said cans on the base A and to hold the same in proper position thereon.

On the base A is erected a standard C, formed on its rear edge with a number of recesses C', adapted to form the fulcrum-points for a hand-lever D, having an opening D' for loosely engaging the standard and for resting the rear end of the lever in one of the recesses, so as to bring the said lever directly over the can, according to the height of the latter. A spring E extends into the opening D' to press against the front edge of the standard C, so as to hold the lever D normally in a horizontal position above the can, but to permit of depressing the lever for cutting the top of the can, as hereinafter more fully described.

On the under side of the lever D is arranged a cutter F, made of spring-steel in the form of a band and provided at the upper edge and at or near the middle thereof with a lug F', engaging a recess in the hand-lever D to hold the cutter in place on the under side of the said lever. On the lower edge of the cutter F, directly opposite the lug F', is formed a point F², from which extend in opposite directions the inclined edges F³, so that when the lever D is forced downward the point F² first enters the top of the can, and upon further pressure on the lever the cutting edges F³ cut the can-top in segmental shape, it being understood that the cutter is formed as a segment the diameter of which corresponds to that of the can-top, as indicated in the drawings.

Now in order to adjust the cutter F to cans of various diameters I provide the outer or free ends of the cutter with upwardly-extending pins F⁴ F⁵, extending through radial slots D² D³, formed in the widened portion of the lever D. The pins F⁴ F⁵ are engaged by bell-crank levers G G', respectively fulcrumed at G² G³ on the lever D and pivotally connected by links H H', respectively, with a hand-lever I extending across the lever D and fulcrumed on one side thereof at I', as is plainly indicated in Fig. 2. Now it will be seen that by moving the hand-lever I in the direction of the arrow a' a swinging motion is given to the bell-crank levers G G' by the links H H', so that the pins F⁴ F⁵ are moved outward in the slots D² D³ to open up the cutter to a larger diameter, according to the size of the can under treatment.

On the hand-lever I is arranged a tooth J, fitted to slide in a suitable guideway I^x and pressed on by a spring J' to engage one of a series of notches D⁴, formed in one edge of the lever D. The notches D⁴ are placed such a distance apart as to indicate the diameter of the cutter F when the hand-lever I engages with its tooth J the corresponding notch.

Now it is evident that by the arrangement described the adjusting device for the cutter F can be readily manipulated by the operator swinging the lever I into the desired position to open up the cutter to the size of the diameter of the can under treatment. When this has been done, the operator simply presses

the lever D downward so as to engage, first, the point F^2 with the top of the can to form an opening therein, and then, upon further pressure, to cut the top of the can in segmental form by the cutting edges F^3 . A longitudinally-extending prong F^6 is formed on the cutter F, between the lug F' and the point F^2 , the said prong extending inwardly to pass under the edge of the cut portion of the top, so that upon moving the lever D upward after the cutting is finished the said prong will lift the cut portion of the top into an open position.

It will be seen that the device is very simple and durable in construction, is not liable to get out of order, and permits the operator to conveniently and quickly adjust the cutter to various-sized cans.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A can-opener, provided with a hand-lever formed with slots, a flexible cutter fastened between its ends to said lever and having its free ends provided with pins arranged to move in said slots, and operating-levers connected with said pins, as set forth.

2. A can-opener, provided with a lever formed with slots, a flexible cutter secured between its ends to said lever, bell-crank levers connected through said slots with the free ends of said cutter, and a lever for operating said bell-crank levers, as set forth.

3. A can-opener, provided with a hand-lever D formed with radial slots, a flexible cutter in the form of a band secured between its ends to the under side of said lever and having its ends formed with upwardly-extending pins adapted to move in said slots, a bell-crank lever secured to each pin, and a lever I pivoted to the lever D and connected with said bell-crank levers, as and for the purpose set forth.

4. A can-opener provided with a hand-lever,

a flexible cutter secured to said lever, levers connected with the ends of said cutter to move the same, and means for moving said last-named levers simultaneously, as set forth.

5. A can-opener, consisting of a base formed with a plurality of concentric circles all in the same horizontal plane, a standard on said base and provided with a plurality of recesses on one of its side edges, and a hand-lever carrying the cutter, said lever being formed with an opening by which it is received on said standard to rest in any one of said recesses, and a spring secured to said lever and extending in said opening, said spring being adapted to press against the side of said standard opposite the recessed side, as set forth.

6. A can-opener provided with a hand-lever formed with slots, a flexible cutter secured between its ends to the under side of said lever, bell-crank levers pivoted to the upper side of the first-named lever and connected through said slots with the free ends of said cutter, and a lever I also pivoted to the first-named lever and connected with said bell-crank levers, said lever I being provided with a spring-pressed tooth and the first-named lever being formed with a series of notches to receive said tooth and hold the lever I in adjusted position, as set forth.

7. In a can-opener, the combination with the standard and its base, of the hand-lever connected with said standard and adjustable at its point of connection to and from said base, a flexible cutter secured between its ends to said hand-lever and having its ends free to move to and from each other, and levers mounted upon said hand-lever for adjusting the said ends and locking them in adjusted position, as set forth.

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Witnesses:

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