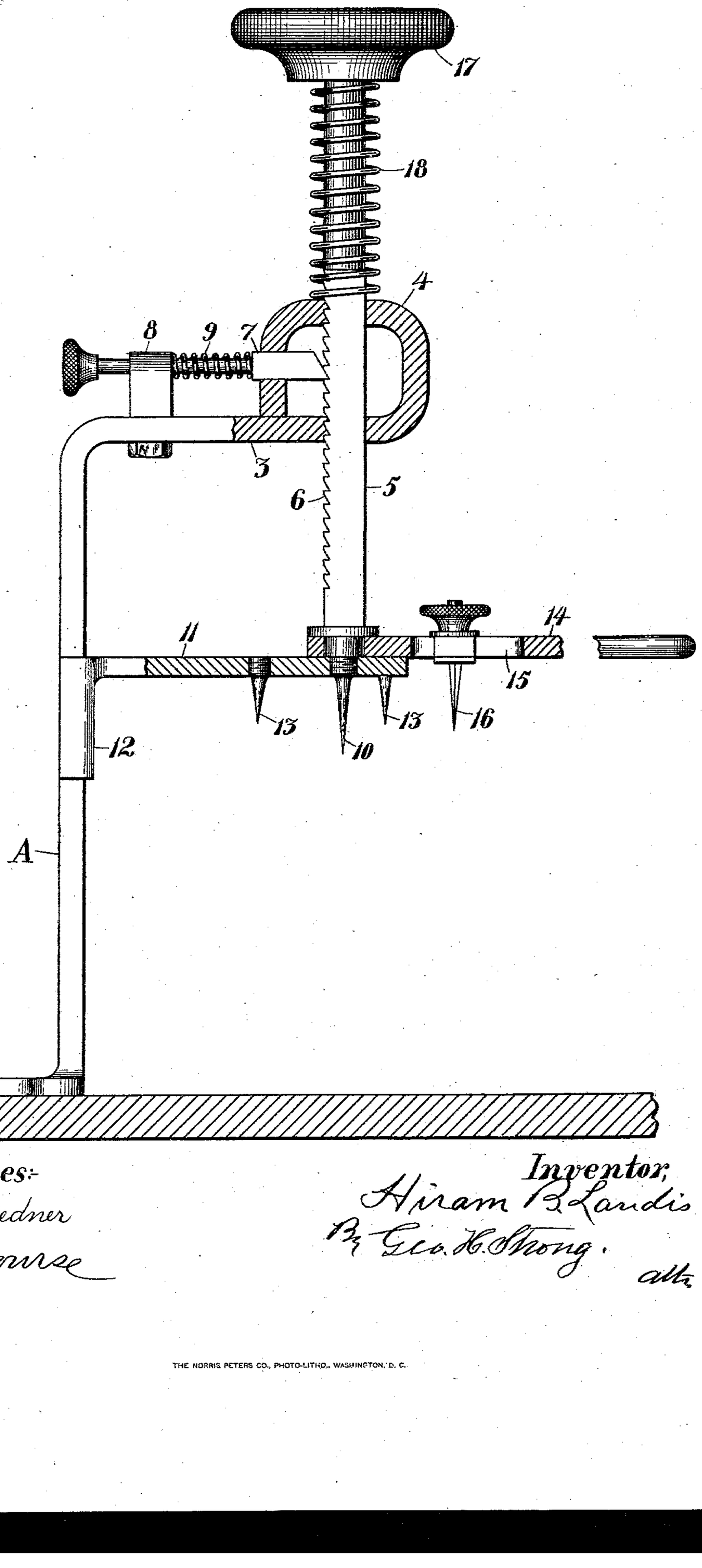
No. 743,735. PATENTED NOV. 10, 1903.

H. B. LANDIS.

CAN OPENER.

APPLICATION FILED JUNE 29, 1903.

NO MODEL.



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No. 743,735. Patented November 10, 1903.

UNITED STATES PATENT OFFICE.

HIRAM B. LANDIS, OF TRAIL, CANADA.

CAN-OPENER.

SPECIFICATION forming part of Letters Patent No. 743,735, dated November 10, 1903.

Application filed June 29, 1903. Serial No. 163,557. (No model.)

To all whom it may concern:

Be it known that I, HIRAM B. LANDIS, a citizen of the United States, residing at Trail, British Columbia, Canada, have invented an Improvement in Can-Openers; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a device which is especially designed for cutting out tops of cans and the like for the purpose of opening the same.

It consists of a bracket or standard with means for permanently attaching to a table, a plate connected therewith having holding-pins adapted to enter the top of a can, a ratchet-bar slidable through guides in the upper part of the standard having a point adapted to enter the can centrally between the holding-pins, a pawl adapted to engage the teeth in the ratchet-bar to hold it and the pin-plate in the proper relation with the cans of different heights, and a handle-bar swiveled to turn about the lower part of the ratchet-bar, said handle-bar carrying a knife adjustable upon it, so as to cut out the section of the top of the can by turning the handle around its fixed center.

My invention also comprises details of construction which will be more fully explained by reference to the accompanying drawing, in which the figure is a view of my can-opener.

It is the object of my invention to provide a convenient stationary apparatus to be used in places where cans containing food products or other substances are to be opened, such cans being of various sizes.

As herein shown, A is a bracket or standard having divergent feet, with means by which they may be secured to a table or other convenient support. The standard is here shown as being rectangular in cross-section and at the other end is bent at right angles, as at 3, this portion extending far enough from the part A to allow cans of any diameter to be centered beneath its outer end, as will be hereinafter described. The part 3 may either be bent upon itself or have fixed thereto a guide, as at 4, and through the parts 3 and 4 rectangular openings are made, through which a ratchet-bar 5 is slidable. This ratchet-bar has teeth formed upon one side, as at 6, and these teeth are adapted to be engaged by a spring-pressed pawl 7, which is movable at right angles with the ratchet-bar, being slidable in a guide or guides formed in the part 4 and a standard 8, which is supported upon the horizontal part 3 of the standard. The spring 9 acts to normally press the pawl into contact with the ratchet-bar, and the pawl is provided with an enlargement or knob at the outer end by which it may be withdrawn and the ratchet-bar may be raised or lowered to adjust its lower end to any height of can which may be operated upon. The lower end of the ratchet-bar has a point or spur 10, which is adapted to enter the center of the can.

11 is a plate having at one end lugs 12, which are slidable and guided upon the edges of the standard A. The outer end of this plate is provided with downwardly-projecting points or spurs 13, disposed about the central point of the ratchet-bar and substantially equidistant therefrom. These spurs are sufficiently separated so that they may enter the top of the can, and thus steady it and hold it in place, while the pin at the end of the ratchet-bar also entering the can-top forms a center about which the cutter bar or handle is movable. This bar or handle 14 is pivoted upon the circular lower portion of the ratchet-bar 5 and just above the plate 11.

The handle 14 has a slot made in it, as at 15, and through this slot passes the shank of the blade or cutter 16. This shank may be screw-threaded and have a suitable nut and washer or equivalent fastening, so that it may be movable radially from the central ratchet-bar point, and thus adjusted to cut any desired size of hole in the top of the can.

The upper part of the ratchet-bar is made cylindrical above the guides 3 4, as shown, and it has a head or cap 17 of sufficient size to serve as a handle upon which a blow may be given to force the point of the ratchet-bar and the holding-pins through the metal of the can-top. This cap also serves as a handle by which to press the bar down for the purpose of assembling or separating the parts.

A spring 18 surrounds the upper portion of the ratchet-bar, and by pressing against the under part of the cap or handle it normally holds the bar up, so that the rectangular or polygonal portion of the bar is slidable within the correspondingly-shaped openings in the

guides 3 and 4, and whenever the pawl is retracted the spring will raise the ratchet-bar to any desired height to admit the can beneath the bar and the plate 11.

By forcibly striking the cap after the can is in place the ratchet-bar and the plate 11 will be driven down simultaneously, so that the spurs 13 and the center pin of the ratchet-bar will simultaneously enter the top of the can.

When it is desired to assemble or separate the parts, the ratchet-bar is pushed down so far that the cylindrical portion is turnable within the guides 3 4, and as the lower portion of the ratchet-bar above the spur 10 is screw-threaded the parts are assembled by first fitting the lugs 12 of the plate 11 upon each side of the standard A. Then the handle-bar, which has a hole fitting the lower circular part of the ratchet-bar, is placed upon the plate 11, and by turning the ratchet-bar while the cylindrical portion is within the guides the screw-threads at the lower end of the ratchet-bar will enter the plate 11 and secure the two parts together, while the handle-bar is turnable loosely above the plate and between it and the shoulder formed at the lower part of the polygonal portion of the ratchet-bar, the whole thus being easily assembled and similarly separated, if desired.

As previously stated, by raising or lowering the ratchet-bar it may be adjusted to cans of any height within the capacity of the apparatus.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination in a can-opener of a fixed vertical standard having a horizontal arm and vertical guide-openings therein, a ratchet-bar having a center pin at the bottom adapted to enter the top of the can, a spring-pressed pawl slidable at right angles with the bar and adapted to hold it at any point of adjustment to suit the height of the can, a handle turnable about the lower portion of the ratchet-bar and a knife or cutter adjustably attached to the handle.

2. The combination in a can-opening device of a vertically-disposed fixed standard having a horizontal arm at the upper end, vertically-disposed polygonal guide-openings carried by said arm, a correspondingly-shaped ratchet-bar slidable in said openings and extending above the guide, said bar having a pointed pin at the lower end, a cap or handle at the top and a spring by which it is normally raised, and a spring-pressed pawl guided and slidable at right angles with the movement of the ratchet-bar and adapted to engage with the teeth thereof to hold it at any point of adjustment.

3. The combination in a can-opener of a fixed vertical standard having a substantially horizontal arm with polygonal guides at the outer end, a ratchet-bar having a cross-section to fit and slide through said guides and a spring-pressed pawl engaging the ratchet to hold it at any point of adjustment, a cap fixed to the upper end of the ratchet-bar, a spring located between the cap and the guides and acting to normally raise the bar, a plate having lugs at one end guided and slidable upon the standard, said plate having downwardly-projecting pins or spurs at the outer end, and a screw-threaded opening through which the lower end of the ratchet-bar passes, a center pin projecting from the lower end of the ratchet-bar, a handle turnable about the lower part of the ratchet-bar, said handle being slotted and having a knife adjustably fixed thereto and adapted to cut the top of the can when revolved about its center of motion.

4. The combination in a can-opener of a vertically-disposed fixed standard having a horizontal projecting arm with guides at the outer end, a ratchet-bar vertically movable in said guide-openings, having a pin at the bottom adapted to enter the top of the can, and a spring-pressed pawl engaging the ratchet-bar to hold it at any point of adjustment, a plate having lugs engaging the sides of the standard and guided thereby, said plates having pins projecting downwardly from its outer end to enter the can-top, and a central opening through which the ratchet-bar passes and by which it is locked to move in unison with the plate, a handle turnable about the lower part of the ratchet-bar and having an adjustable knife fixed and projecting from it, a cylindrical extension of the ratchet-bar above its polygonal guides, a cap at the top and a spring located between the cap and the guides, said spring being compressible to allow the ratchet-bar to be pushed down until the cylindrical portion lies within the guides whereby it may be turned to engage with or disengage from the pin-carrying plate.

In witness whereof I have hereunto set my hand.

HIRAM B. LANDIS.

Witnesses:
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