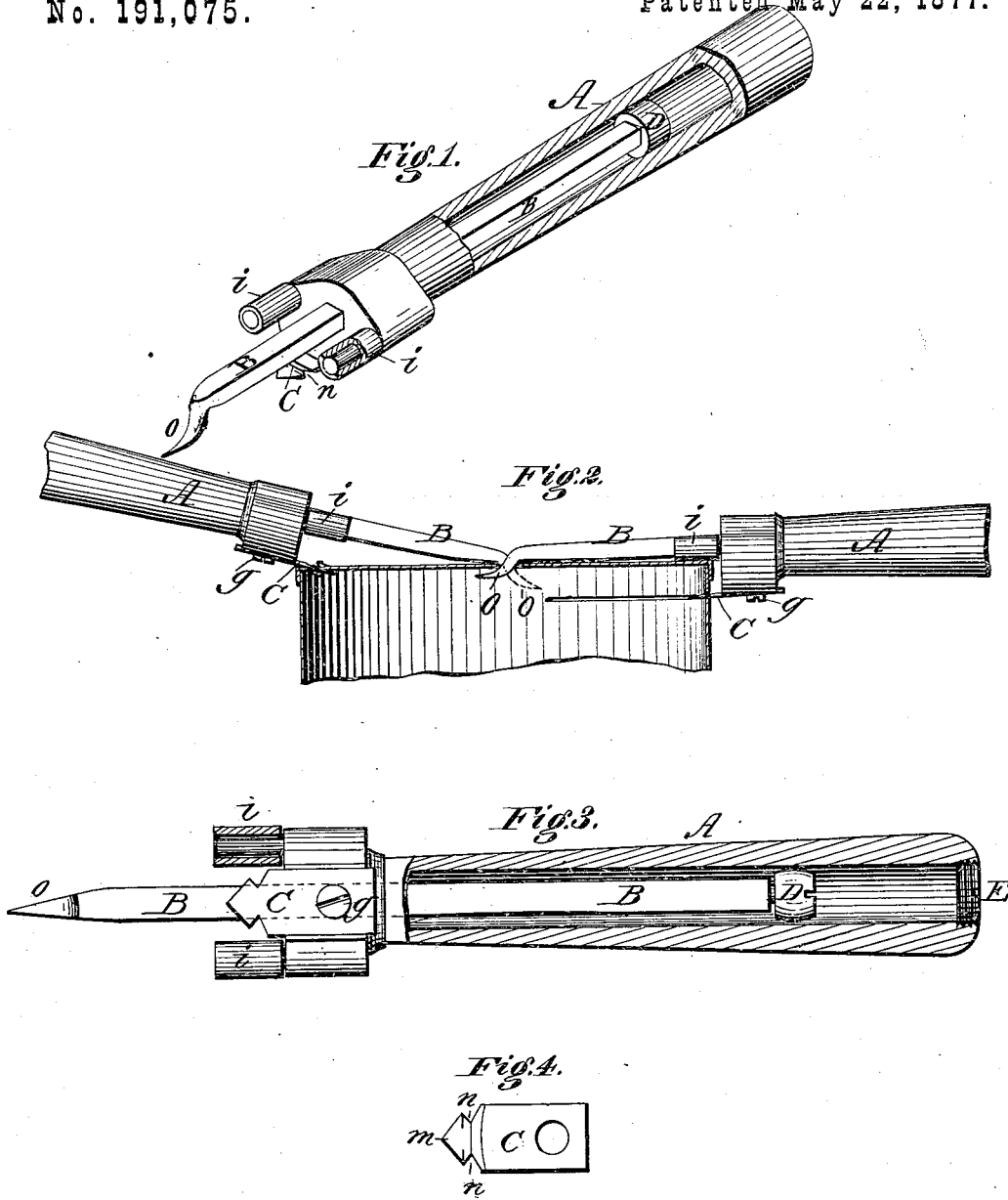


R. H. ROSE.
CAN-OPENER.

No. 191,075.

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IMPROVEMENT IN CAN-OPENERS.

Specification forming part of Letters Patent No. **191,075**, dated May 22, 1877; application filed May 2, 1877.

To all whom it may concern:

Be it known that I, RUFUS H. ROSE, of Liverpool, England, have invented certain Improvements in Can-Openers, of which the following is a specification:

My invention consists in a can-opener, having its handle provided with a cutting-blade arranged parallel with the axis of the handle, and having rod carrying a curved point, which serves as the pivot or center of motion, arranged to slide in the plane of the handle, whereby the cutter or blade, when in operation, can be made to approach toward, or recede from, the center, and by which means also it can be made to cut circles or openings of various sizes at will.

It further consists in providing friction-rollers or equivalent guides to bear upon the top of the can, and guide the cutter or blade, whereby a true and smooth cut may be made around or along the side of the can, all as hereinafter more fully set forth and claimed.

In the drawings, Figure 1 represents a perspective view of my improved tool, a portion being broken away to show the construction more clearly. Fig. 2 represents a side view of the tool in the act of opening a can, the tool being shown in two different positions; Fig. 3, a bottom face view of the same, the handle being shown in section; and Fig. 4 a view of the blade or cutter detached.

In packing various articles in tin receptacles, the shape or form of the receptacles is varied according to the fancy or convenience of the packer. It is, therefore, desirable to produce an implement which shall be able to remove the lid or covering from such packages regardless of their shape.

It is also found desirable to remove the entire lid or covering from the packages, instead of cutting out a portion of the same, and leaving a flange projecting inward around the opening formed, especially where the contents of the package are of a solid nature, as this flange materially interferes with the ready removal of such contents.

In constructing my improved tool, I have, therefore, sought to produce an implement by which a package of any shape may be quickly and easily opened, and by which either the

whole or only a part of the lid or cover may be removed, as desired.

To accomplish these results, I provide a hollow or tubular metal handle, A, and mount therein a sliding rod, B, having its outer end bent and formed into a point, *o*, as shown in Figs. 1, 2, and 3, while its other end is provided with a head or enlargement, D, as shown in Figs. 1 and 3. The end of the handle through which the rod B extends is enlarged, as clearly shown in the drawing, and is provided with two studs or arms projecting from the end of said enlarged portion, on which are mounted rollers *i*. The under side of this enlarged portion of the handle is slightly recessed to receive a knife or cutter, C, said cutter being held in place by a screw, *g*. The rod B is made to fit loosely in the opening in the end of the handle through which it projects, being only loose enough to move freely through the same. The rod B is made of a diameter somewhat less than that of the hollow interior of the handle A, and is provided at its inner end with a head or enlargement, D, as before stated, said head fitting the interior of the handle just loosely enough to move freely therein, and serving as a guide to the rod B in moving in or out.

It will be seen that by this arrangement the rod B bears only at the point where it passes through the end of the handle A, and where the head D comes in contact with the interior of the handle, thus giving but little friction and small rusting-surface.

The rod B is inserted from the forward end of the handle A, while the head or piston D is inserted through the opposite end, and either screwed, riveted, or otherwise secured to said rod. The rod B is thus prevented from passing entirely out through the forward end of the handle. The rear end of the handle A is closed by means of a screw-plug, E, or other suitable device.

The knife or cutter C (shown detached in Fig. 4) is of peculiar form. It consists of a double-edged cutter, provided with a point, *m*, and two notches, *n*, the edges of said point and notches being sharpened, as shown. This cutter is placed on the under side of the enlarged forward end of the handle A, and held

in place by means of a screw, *g*, the point and notched portion of the cutter projecting beyond the end of the handle, as shown, but not so far from the same as the ends of the rollers *i*.

When it is desired to use the tool for removing only a portion of the lid or cover of a can or package, the implement will be used as follows: The rod *B* is made of such a length that the point *o* shall extend its full length beyond the rollers *i*, when the head or piston *D* is bearing against the screw-plug *E*. This point *o* is pushed through the metal forming the lid or cover, preferably at the center. The handle *A* is then drawn backward until the point *m* of the cutter comes to the place at which the cutting is to commence, when, by pushing down on the handle *A*, the point *m* is driven or punched through the metal until the notches *n* come opposite the edge of the lid. The handle *A* is then carried around the point *o*, acting as a center on which to swing the same, until the portion is cut completely out, or nearly so, as may be preferred. This manner of using the tool is represented at the left hand in Fig. 2.

When it is desired to remove the entire top of the case or package, the point *o* is driven through the lid or cover, as above described, the handle drawn back until the knife or cutter *C* can pass over the edge of the case or package, the rollers *i* resting on the top of the package, and forming a guide to regulate the distance of the cut from the top edge of the can, as shown in Fig. 2. The point *m* is then driven through the side of the can by pushing on the handle *A* far enough to bring the notch *n* opposite the edge of the metal to be cut. The handle *A* is then carried around the point *o*, serving as a center, and the rollers *i* resting on the upper face of the package, as shown at the right hand in Fig. 2, thus regulating perfectly the distance between the top edge of the package and the line on which the cutting takes place.

By this means the tool may be held perfectly steady, and a clean, uniform cut produced.

When the top of the package is thus removed, the edge is left very smooth and even, and a new lid or cover may be readily placed on the same, and this operation may be repeated every time a top is removed, thus enabling the package to be used repeatedly, and until the package becomes too small for further use.

It is obvious that the details of construction may be considerably varied without departing from the nature of my invention—as, for instance, the head or piston *D* may be formed upon the rod *B* itself, instead of from a separate piece, and the rod inserted from the rear end of the handle *A*, the opening in the forward end of said handle being slightly enlarged on the lower side to allow the curved point *o* to pass through.

In order to prevent the handle *A* from turning on the rod *B*, the rod and opening through which it passes may be made of any form other than circular; or it may be made circular and slotted, a pin passing through the slot and into the handle *A*; or the interior of the handle *A* may be made of any form other than circular, and the head or piston *D* made to fit the same, in which case the head or piston *D* is made in one piece with the rod *B*.

The knife or cutter being formed with a cutting-edge on either side, the tool may be carried around to the right or left equally well, while the notched form of the cutter causes it to retain its proper position with reference to the metal to be cut.

If desired, the rollers *i* may be omitted, and studs or arms used in their stead.

The cutters *C* are formed from strips or sheets of thin flat steel at a trifling cost, and may be readily sharpened or replaced when worn, thus rendering the tool in all respects as perfect as when new.

The device when thus constructed is found to be very efficient, being adapted to packages of various sizes, and as the handle *A* is free to move back and forth on the rod *B*, erraying with it the cutter *C*, it is apparent that the cut made by the tool may be made to correspond exactly to the shape of the package, or varied therefrom, as desired.

The tool may be made of any suitable metal, the cutters being in any case made of steel, the whole being light, strong, and cheap.

Another advantage of this tool is, that the edge of the vessel when cut, whether on the top or side, is left clean and smooth, whereby the vessel is much better fitted for use afterward for other purposes than when cut by the instruments ordinarily used, and which generally leave the edge rough and jagged.

Having thus described my invention, what I claim is—

1. A can-opener, consisting of a handle, *A*, provided with the loose rod *B*, having a curved point, *o*, and a cutting-blade, *C*, all combined to operate substantially as described.

2. In combination with the handle *A*, provided with the curved point *o*, the blade *C*, arranged in a plane parallel with the handle, whereby said blade may be made to operate on the side of the can, while the point *o* rests in the top thereof, substantially as shown and described.

3. A can-opener provided with the rollers *i*, or their equivalents, arranged to operate as guides to the blade in the act of cutting, substantially as set forth.

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Witnesses:

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