(No Model.)

W. L. PALMER.

CAN OPENER.

No. 569,932. Patented Oct. 20, 1896.

Fig. 1.

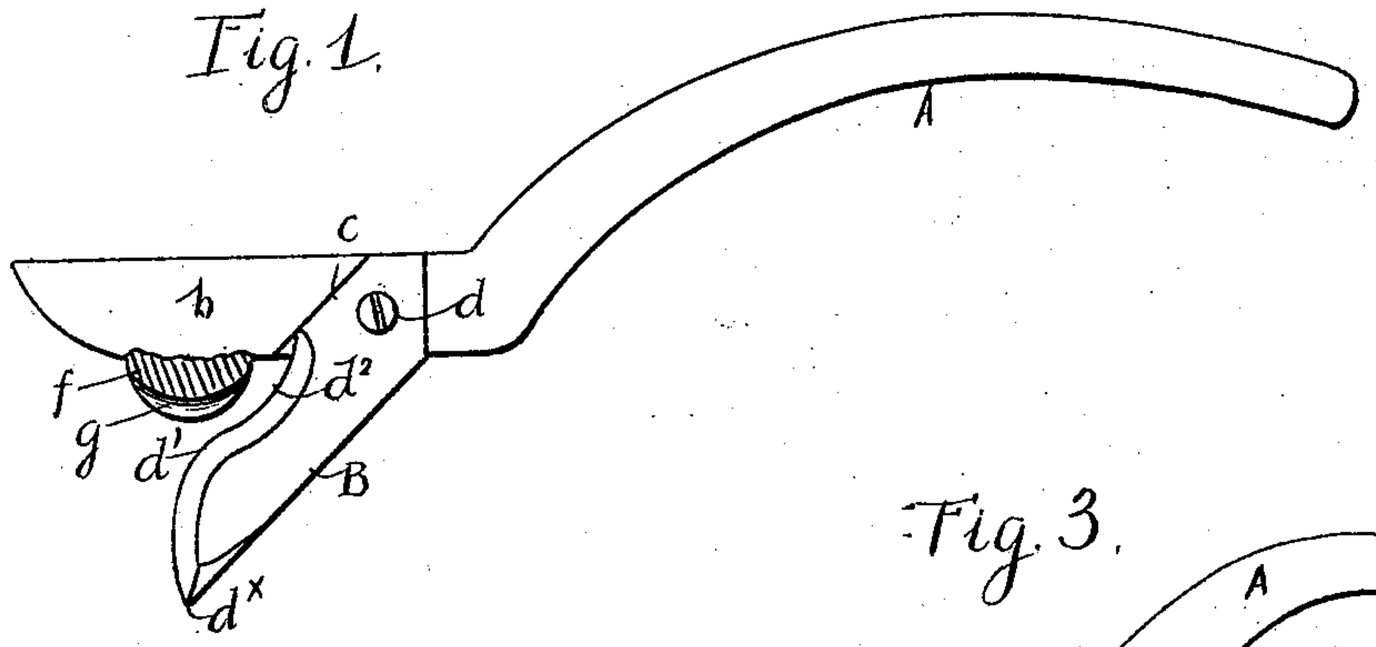


Fig. 2.

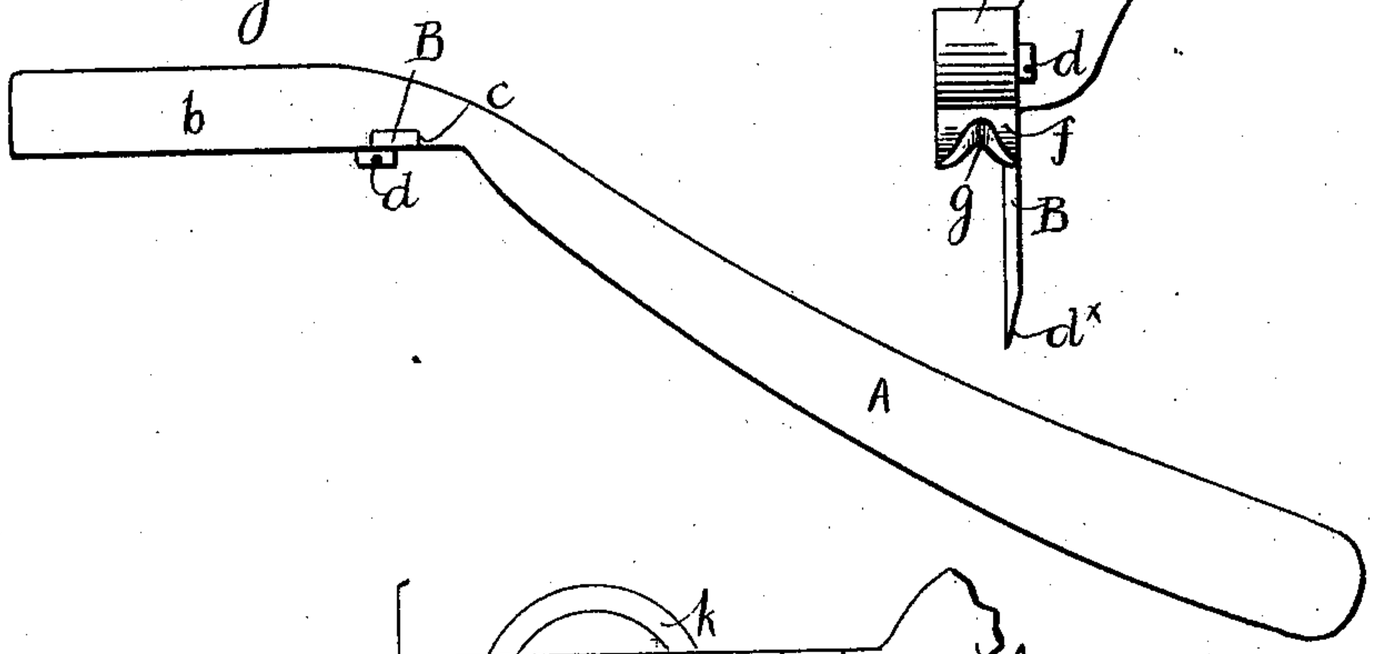


Fig. 3.

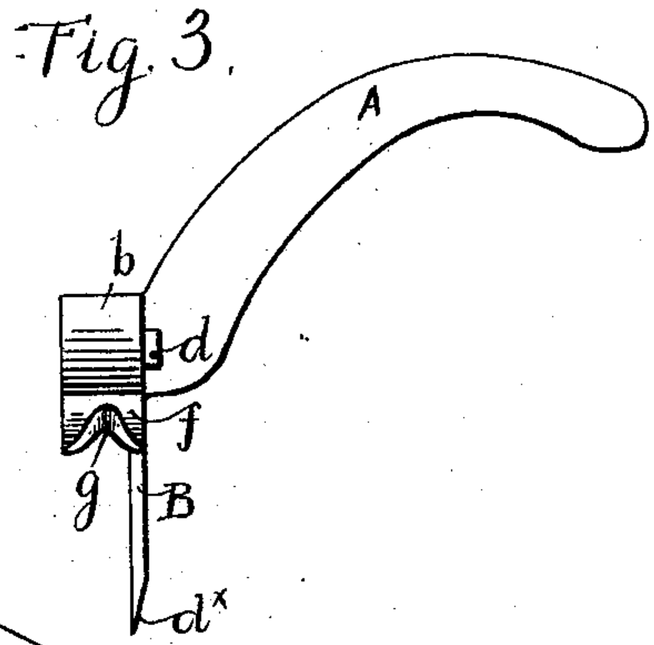
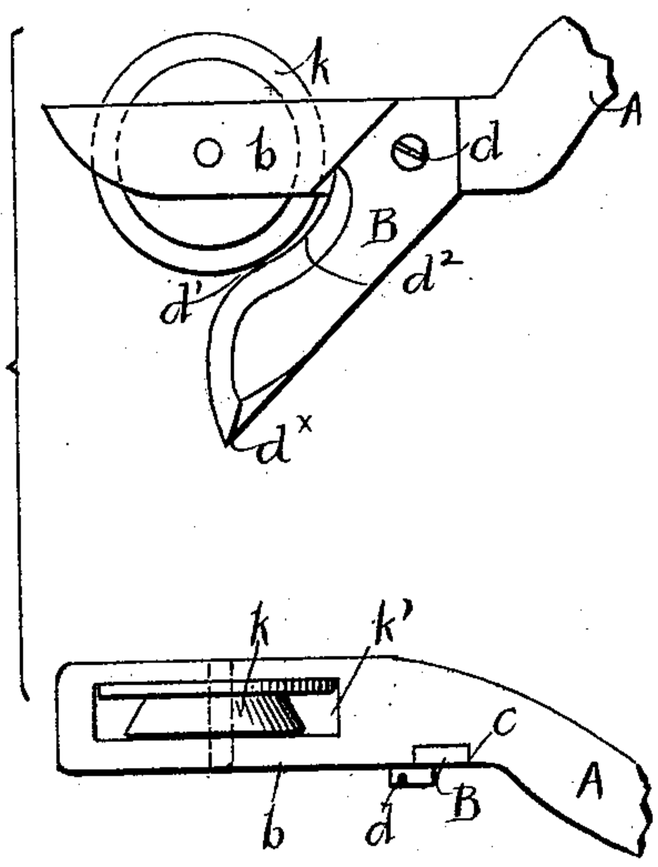


Fig. 4.



Witnesses.

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CAN-OPENER.

SPECIFICATION forming part of Letters Patent No. 569,932, dated October 20, 1896.

Application filed July 23, 1896. Serial No. 600,273. (No model.)

To all whom it may concern:

Be it known that I, WILFORD L. PALMER, a citizen of the United States, and a resident of Washington, in the District of Columbia, 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a side elevation, partly in section, of my improved can-opener. Fig. 2 is a plan view of the same. Fig. 3 is a front end view, and Fig. 4 is a view showing in side elevation and plan a modified form of the guard.

This invention is designed to provide a can-opener of improved character; and it consists in the novel construction and combination of parts, all as hereinafter described, and pointed out in the appended claims.

Referring to the accompanying drawings, the letter A designates the handle-bar or lever of my improved can-opener, and B the knife or cutter thereof. Said bar or lever is formed at one end portion with the cutter-carrying head *b*, the plane of whose inner lateral face is at an oblique angle to the general plane of the handle proper, the value of such an angle being preferably between one hundred and forty and one hundred and fifty-five degrees. The handle proper is of upwardly-arched form, with an inward lateral bend, as indicated, and is shaped to adapt it to the hand of the operator. Formed in the inner face of the head *b*, near the point where the bend of the handle commences, is an angular recess *c*, which seats therein the shank of the knife B, said shank having an angular form corresponding to that of the recess, whereby the walls of the latter form abutments for said shank and prevent vibration or play of the knife in operation. The knife is usually secured by a screw *d*, so that it can be readily removed for the purpose of being sharpened or to be replaced if broken.

The form of the knife which I prefer to employ, and which I have illustrated, has a forward and downward inclination, terminating in a sharp point $d^{\times}$. The cutting edge has a double reverse curve, its point of greatest convexity being at the point d', while its lowest point is at d^2, near the heel.

The forward end portion of the head *b* is formed on its under side with a semicircular or convex projection *f*, which has therein a beveled groove *g*, adapted to engage and run upon the edge of the can being opened. Forward of this projection the under side of the head is beveled or rounded upward to the plane of its upper side for the purpose of forming a working bearing upon the top of the can.

It will be noted that the space between the knife at the point d' and the rear portion of the projection *f* forms a throat wherein the cutting takes place.

In operation the point of the knife is forced through the top of the can to the said throat with the groove *g* engaging the edge of the can and the projection *f* bearing thereon. The cut is made by a lifting action of the handle, the said projection taking a rolling bearing on the top of the can.

The form of the handle-bar is of great importance, as will be readily seen, since, owing to the angle of the knife with respect to the handle proper, the former in operation naturally follows the curve of the can, while at the same time the handle is in such position that the hand of the operator is brought away from the can and out of contact with the cut edge thereof. The engagement of the groove *g* with the edge of the can renders it less possible for the implement to slip in the manner common to devices of this kind and with serious results to the hand, while the character of the cutting-throat and of the leverage obtained enables the device to be operated with the greatest ease and efficiency.

In Fig. 4 I have shown a modification of the invention wherein, in place of the integral guard and bearing projection *f*, I provide a circular peripherally-grooved disk *k*, which is journaled in a vertical slot *k'*, formed through the head *b*. The outer wall of the groove of said disk is higher than the inner wall, and its inner face is in a vertical plane. The inner wall of the groove has an inward and downward inclination which meets the bottom of the outer wall. The form first de-

scribed is, however, preferred for the reason that, while its effectiveness is about the same as that of the latter form, it is much cheaper to manufacture.

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

1. The herein-described can-opener, comprising a bar or lever having a cutter-carrying head at one end portion whose vertical plane is at an oblique angle to that of the handle portion of said bar, a knife secured to the said head in the plane thereof, and having an upwardly and rearwardly inclined cutting edge, and a guard carried by said head above said cutting edge, and adapted to engage the peripheral edge of the can, substantially as specified.

2. The herein-described can-opener, consisting of a bar or lever having an upwardly-arched handle portion, and a cutter-carrying portion the plane of whose inner lateral face is oblique with reference to the vertical plane of the handle portion, and which is formed with a convex grooved guard projecting below its lower face, together with a knife or cutter secured thereto and having an inclined cutting edge extending underneath the said guard, substantially as specified.

3. The herein-described can-opener, comprising a bar or lever having at one end portion a cutter-carrying head, and bent for the remainder of its length to form a handle portion said head having on its under side a convex grooved projection, and a knife or cutter secured to the said head and having a curved and inclined cutting edge extending underneath the said projection, the vertical plane of said knife being oblique with respect to the vertical plane of the handle, substantially as specified.

4. The herein-described can-opener, comprising a bar or lever having an upwardly-arched and laterally-curved handle portion, and a cutter-carrying head whose vertical plane is oblique with respect to that of said handle portion, said head having a grooved guard projecting below its lower face and adapted to engage the peripheral edge of the can, and an upwardly-beveled portion forward of said projection, together with the forwardly and downwardly extending knife secured to the said head near its inner end and formed with a sharp point, the inclined cutting edge of said knife extending below the said guard and having a double reverse curve, substantially as specified.

5. The herein-described can-opener having a cutter-carrying head at one end portion said head having a can-bearing at its under side, and an upwardly-arched handle portion having a lateral inward bend with respect to said head, whereby the cutter has, in operation, a natural tendency to follow the curve of the can, and a cutter secured to said head and having its cutting edge lying below the can-bearing, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

WILFORD L. PALMER.

Witnesses:
GEORGE H. PARMELEE,
G. M. ANDERSON.