J. L. SHRODE.

CAN OPENER.

APPLICATION FILED JULY 9, 1909.

954,054. Patented Apr. 5, 1910.

Fig. 1.

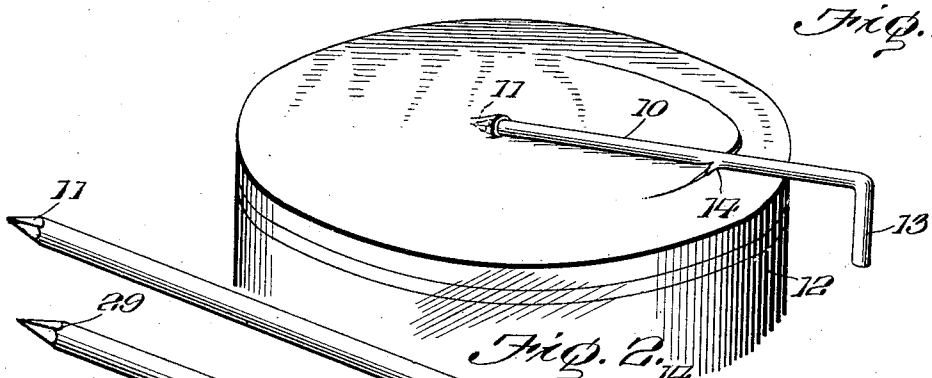


Fig. 2.

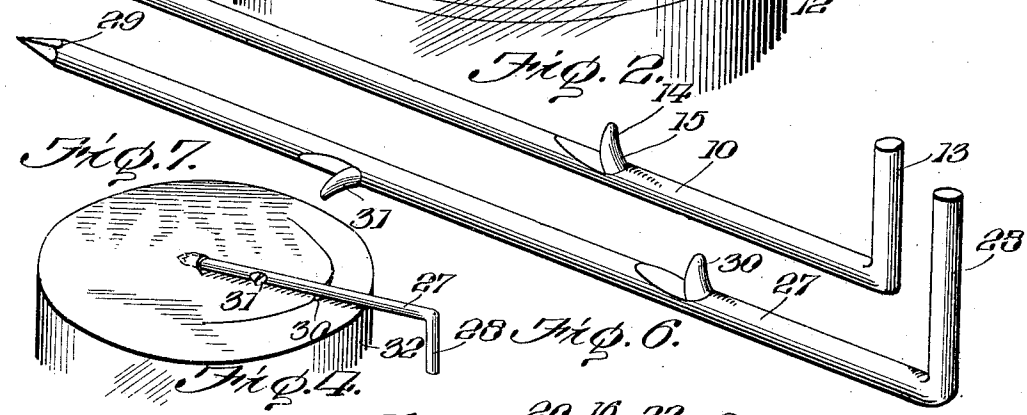
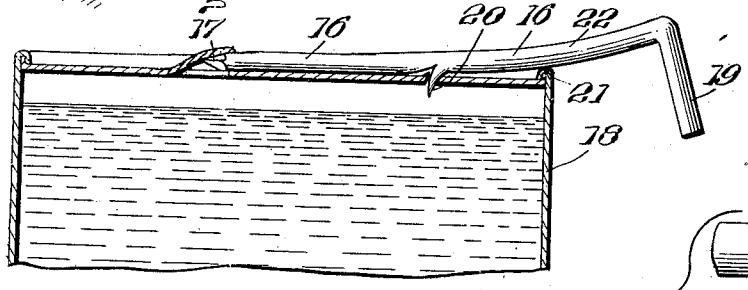


Fig. 7.

Fig. 6.

Fig. 4.



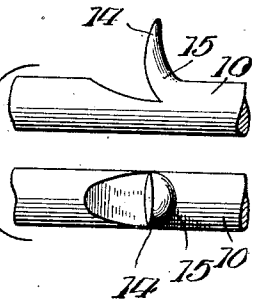


Fig. 3.

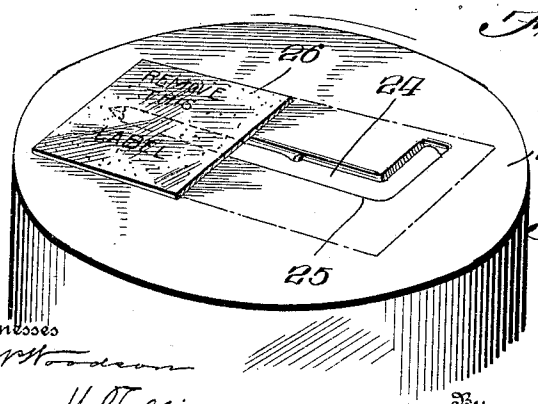


Fig. 5.

Witnesses

W. M. Woodson

Juana M. Fallin.

Inventor

J. L. Shrode

By

H. A. Kaey, Attorneys.

UNITED STATES PATENT OFFICE.

JOHN L. SHRODE, OF HOPKINSVILLE, KENTUCKY, ASSIGNOR OF ONE-FOURTH TO FREDERICK W. NUNN AND ONE-FOURTH TO GEORGE M. CRIDER, OF MARION, KENTUCKY.

CAN-OPENER.

954,054. Specification of Letters Patent. Patented Apr. 5, 1910.

Application filed July 9, 1909. Serial No. 506,721.

To all whom it may concern:

Be it known that I, JOHN L. SHRODE, citizen of the United States, residing at Hopkinsville, in the county of Christian and State of Kentucky, have invented certain new and useful Improvements in Can-Openers, of which the following is a specification.

This invention relates to can openers and has particular reference to a novel formation of the same.

The invention has for an object a can opener provided with a blade which is so formed that the liability of its bending or twisting during the operation thereof is lessened so as to present rigid cutting edges. The blade is further formed to preserve the cutting edge thereof owing to the fact that they are rigidly held from twisting. In connection with this object the formation of the blade not only strengthens the same but also provides means whereby the blade is guided in its action about the top of the can, preventing the blade from any tendency to travel toward the edge of the cover and causes the same to cut circularly through the top.

The invention has for another object the provision of cutting edges upon the blade of the opener which are of curved formation, thereby possessing all the advantages gained by a rotary cutter and yet embodying the advantage of rigid formation. In curving the edges of the cutter the advantage of an angularly formed edge is obtained wherein the cutting action is had by the expenditure of but slight pressure upon the implement.

The invention further contemplates a can opener which embodies simplicity of construction, insomuch that the opener comprises but a single length of wire which is of straight formation and from the side of which the cutter is struck. The handle of the implement is formed by simply bending one end of the single length of wire at an angle to the same.

A still further object of this invention is to form a can opener which possesses the above enumerated advantages and at the same time is applicable to cans of various sizes and constructions. In connection with this adaptation of the opener to cans of various sizes and forms, the invention provides a means whereby the opener will be retained centrally of the can to admit of the circular cutting of the same.

For a full understanding of the invention reference is to be had to the following description and accompanying drawings, in which:—

Figure 1 is a perspective view of the opener as applied to the top of a can. Fig. 2 is a detailed perspective view of the opener in an inverted position. Fig. 3 is a detailed fragmentary view of the opener disclosing the formation of the blade upon the same. Fig. 4 is a side elevation of a slightly modified form of the opener as applied to a can having a flanged top, the can being disclosed in section. Fig. 5 is a perspective view of the upper end of the can disclosing the means by which the opener may be attached to the same. Fig. 6 is a perspective view of another modification of the opener disclosing two blades formed on the same, and Fig. 7 is a perspective view of the application of the modified form of opener as disclosed in Fig. 6 to a can.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawing by the same reference characters.

Referring to the drawing the numeral 10 designates a length of wire which is preferably formed of hardened steel, or a like metal, which offers considerable resistance, the length of wire 10 being preferably pointed at one extremity as at 11 to form a means for perforating the cover of a can 12. The opposite end of the wire 10 is turned at substantially right angles to form a handle 13 which is adapted to be grasped by the fingers of the operator.

At one side of the wire 10 in the plane of the handle 13 is provided a blade 14 which is formed by engaging the wire at one side and turning the cut-away portion or tongue formed thereby, upward from the wire 10 to extend at substantially right angles to the body portion of the wire 10. As the wire 10 is of circular formation the struck up portion or blade 14 is provided with an outer convex face 15 extending toward the handle 13 and is provided upon its inner side with a substantially flattened or slightly concaved face which disposes the edges of the blade 14 at a slight inwardly curved angle. The extremity of the blade 14 is substantially pointed, thereby sloping the edges of the same so as to present diagonal cutting edges to the can 12 which is to be cut.

In Fig. 4 is disclosed a slightly modified form of can opener which comprises a length of wire 16 which is pointed at one extremity as at 17, to form a perforator, for the cover of the can 18, the length of wire 16 being turned at substantially right angles to form a handle 19 which depends from the top of the can 18 in order to form a finger hold for the operator while manipulating the device. The length of wire 16 is formed intermediately with a struck up blade 20 which is of similar formation to the blade 14 above described and which lies in the plane of the handle 19 so as to project downwardly through the cover of the can 18. In this formation the can 18 is disclosed as having an annular flange 21 formed about the upper edge of the same, as is the construction of many cans now in use, whereby it is necessary to curve the length of wire 16 upwardly at the point which passes over the flange 21 as is disclosed at 22 to admit of the insertion of the blade 20 within the cover of the can 18.

In Fig. 5 is disclosed a can 23 which is provided with a depression 24 in the top of the same which receives the can opener 25 to a sufficient depth to enable the upper face of the opener 25 to lie flush with the upper surface of the cover of the can 23. A label 26, which is formed of paper, or the like, and which is provided with suitable instructions as to the location and the operation of the opener is pasted upon the upper face of the cover of the can 23 to securely retain the opener 25 in such a position during the shipping of the can 23 from the packer to the consumer.

In Fig. 6, which discloses another slight modification of the opener, a length of wire 27 is formed which is bent at one end to form a handle 28, the opposite end of the wire being pointed as at 29. The length of wire 27 is provided with two blades 30 and 31 which are similarly formed to the blade 14 hereinbefore described and which are disposed in different planes, preferably at right angles as shown so that when the outer blade 30 is employed in cutting a can top the opposite blade 31 will be positioned upwardly out of contact with the can cover to permit of the free movement of the blade 30.

In Fig. 7 the modified form of opener is disclosed as being applied to a can 32 where the blade 30 is engaged in the cover of the can while the blade 31 is disengaged from the same. The pointed end of the wire 27 is inserted in the central portion of the can cover and acts as a guide to retain the pointed end of the wire 27 centrally of the can 32 and thereby causes the uniform cutting of the cover.

In operation the operator grasps the handle 13 and lays the body portion of the wire 10 across the top of the can 12 laterally when he presses the wire 10 downwardly upon the can and causes the blade 14 to engage through the cover. The wire 10 is now moved laterally and caused to cut the cover of the can and the cut formed in the cover will be of substantially circular formation owing to the concaved formation of the blade 14. The concaved portion of the blade 14 will give a tendency to the blade 14 to move inwardly rather than outwardly toward the edge. The inward movement of the blade 14 can be readily checked by the positioning of the finger between the handle 13 and the side of the can 12. In starting the operation the body portion of the wire 10 is grasped in the hand and the pointed extremity 11 is impinged across the upper face of the cover of the can 12 to perforate the same whereby the blade 14 is readily started in its movement.

It is readily observed that since this device is so simply constructed, the same comprising but a single length of wire, that the opener may be carried in a recess or indenture formed at the end or side of the can and that the same may be used a number of times successfully as the opener does not change in form nor collect any metal of the can during the operation of the same.

In operating the modified form of the device as is disclosed in Figs. 6 and 7 the operator grasps the body portion or shank of the opener and impinges the same down upon the central portion of the can cover causing the point 29 to penetrate the cover. With the point 29 inserted partly through the cover, the operator forces the wire 27 into a horizontal position upon the top of the can 32 which bends the cover about the aperture and forms a guide for the pointed extremity 29 of the opener. As the wire 27 is drawn down upon the cover the handle 28 is rotated to bring one of the blades 30 or 31 into engagement with the can 32, the blade 30 for large cans while the blade 31 is employed for small cans, the blades 30 and 31 thus being singly brought into engagement with the cover of the can by the partial rotation of the handle 28. This construction of opener permits the pointed extremity 29 to be positioned centrally of the can, irrespective of the size of the same, and to form a guide for the cutting blade.

Having thus described the invention what is claimed as new is:—

1. A can opener including a length of wire pointed at one extremity and turned at substantially right angles to the opposite extremity, a blade laterally extended from the side of said wire intermediately thereof, a convexed face formed upon the outer side of said blade by the raising of the same and a concaved inner face formed upon the inner side of said blade.

2. A can opener including a single length

of wire, a pointed extremity formed on said wire, the opposite end of said wire being bent at substantially right angles to form a handle, a blade struck from the side of said wire in the plane of said handle, an outer convexed face formed on said blade and an inner concaved face formed on said blade, said faces of said blade being formed by the striking of the same upwardly from said body portion.

3. A can opener including a length of wire, a handle formed at one end of said wire, a blade struck up from the side of said wire, cutting edges formed at the opposite edges of said blade and converged at the upper end of the same, a convexed face formed outwardly on said blade and a concaved face formed upon the inner side of said blade, said faces being formed in the striking up of said blade.

4. A can opener including a single length of wire, a pointed extremity formed on said wire, a handle formed at the opposite end of said wire, a blade laterally extended from an intermediate point of said wire and integrally formed therewith, an outer convexed face formed on said blade and an inner concaved face formed on said blade.

5. A can opener including a length of wire, of cylindrical contour and having a notch formed in the side thereof to provide a tongue, said tongue being bent outwardly from the notched portion of said wire and having a convexed outer face by reason of the cylindrical formation of said wire and a handle formed at one end of said wire by the lateral bending of the same.

6. An article of manufacture including a length of wire having a notch formed intermediately in the side thereof, the cut-away portion of the wire being bent outwardly at substantially right angles to form a blade, one end of said length of wire being pointed and a laterally bent portion upon the opposite end of said wire to form a handle, said handle being bent in the plane of said blade.

7. An article of manufacture including a length of wire pointed at one extremity and bent at the opposite end to form a handle, the wire being notched in the sides thereof, the notched sides being disposed at different angles to one another, the cut-away portions from said notched sides being bent outwardly to form blades arranged in different planes.

8. A can opener including a length of wire pointed at one extremity, a handle formed at the opposite end of said wire by bending the same, and blades extended laterally from the ends of said wire at angles to one another said blades being integrally formed with said wire and formed by notching the sides of said wire.

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

JOHN L. SHRODE. [L. S.]

Witnesses:
GEORGE M. CRIDER,
FREDERICK W. NUNN.