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1,502,465

S. H. GARRETT

CAN OPENER

Filed July 29, 1922

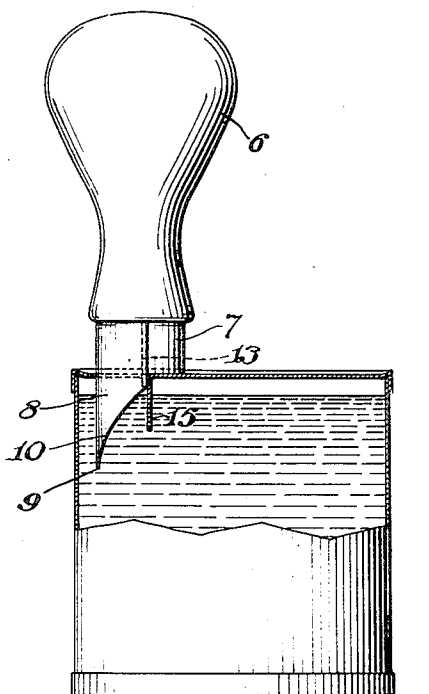


Fig. 1

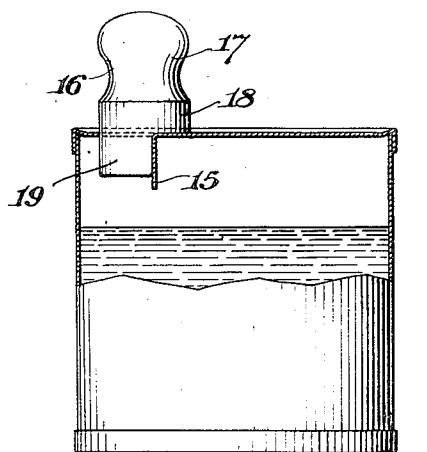


Fig. 2.

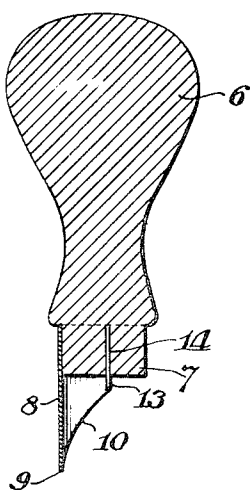


Fig. 3.

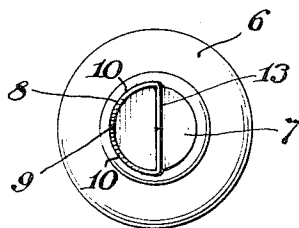


Fig. 4.

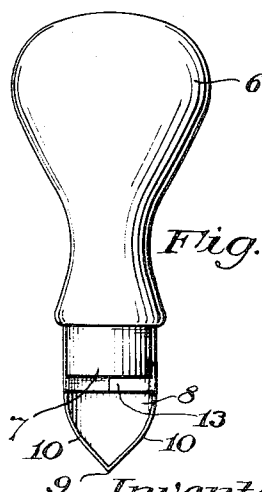


Fig. 5.

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UNITED STATES PATENT OFFICE.

SAMUEL H. GARRETT, OF PHILADELPHIA, PENNSYLVANIA.

CAN OPENER.

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To all whom it may concern:

Be it known that I, SAMUEL H. GARRETT, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Can Openers, of which the following is a specification.

My invention relates to can openers, and specifically considered, it relates to a device for cutting an opening in the top of sheet metal receptacles, such as are employed as containers for various commodities, for the purpose of removing such commodities therefrom.

In the utilization of various commodities which are packaged in the familiar tin cans, it is frequently desired to so open and perforate the container that portions of the contents may be removed from time to time as desired, the balance being retained in the can for storage and protection. Materials such as condensed milk, molasses and liquid soups, or materials in granular or powdered form, may be readily removed from the can through a small aperture, but it is desirable that such aperture be free from ragged or projecting edges which might cause injury to the user. It is also desirable that the opening be so shaped as to permit the contents of the can to flow freely therethrough.

The object, therefore, of my invention is to provide a simple and convenient device for quickly and easily making an opening in the top of a can for the purpose of removing the contents thereof, which device may be inexpensively constructed, yet will be exceedingly efficient for its intended purpose, and which will provide an opening of such character that the contents will readily flow from the can, and which opening also may be readily closed by a suitably shaped plug which may be provided in connection with the can opener.

The nature and characteristic features of my invention will be more readily understood from the following description, taken in connection with the accompanying drawings forming part hereof, in which

Figure 1 is a side elevation of a can opener embodying the main features of my present invention, the same being shown in operative relationship in connection with a can of ordinary type, the can being shown par-

tially in section to more clearly illustrate the operation of the device;

Fig. 2 is a view similar to Fig. 1, but with the plug device shown in position in the aperture in the can after the can opener of my present invention has been used to make said aperture;

Fig. 3 is a vertical central section of the can opener;

Fig. 4 is an underneath plan view thereof; and

Fig. 5 is a rear elevation thereof.

Referring to the drawings, in the particular embodiment of my invention therein shown, 6 is a knob-like handle having a cylindrical extension 7 at the lower end thereof. Fastened to this cylindrical extension 7 is a knife member 8, semi-circular throughout its longitudinal extent, terminating at its lower end in a point 9, and having curved knife edges 10 extending upward and diverging from the lower point 9 of said knife member 8. The metal of the knife member 8 is bent inwardly, as at 13, the inwardly bent portion extending transversely across the structure and being frictionally engaged in a kerf 14 in the cylindrical extension 7 of the handle 6, and extending downward below the lower end of the cylindrical member 7 so as to form a distinctive shoulder below the same, for a purpose to be presently explained. This knife member 8 may be secured to the cylindrical extension 7 of the handle 6 in any suitable manner, but it will be found ordinarily that the frictional engagement of the portion 13 in the kerf 14 will be sufficient to maintain the knife member 8 in its proper position. It will be noted that the portion 13 extends transversely from side to side of the cylindrical member 7, and that the sharpened edges 10 of the knife member 8 terminate at their upper ends at points preferably in alinement with the lower edge of the portion 13, which, as before stated, forms a transversely extending shoulder below the lower surface of the cylindrical extension 7.

The operation of the device may now be explained. The can opener is used by pushing the point 9 of the knife member into the top end of the can adjacent the rim thereof, with the semi-circular portion of the knife member disposed outward, that is, toward the rim of the can. The device is now

pushed downward into the end of the can, the point first penetrating the tin and the cutting edges thereafter engaging the same, so that a semi-circular opening will be cut in the top end of the can. The device is forced into the end of the can as far as the same will go, so that the shoulder formed by the projecting portion 13 will engage the semi-circular lip of tin which has been cut from the top of the can, and will force the same downward and inward, as clearly shown in Fig. 1 of the drawings. There will thus result a fully opened semi-circular aperture in the top end of the can, the metal from which extends abruptly inward, and there will be no ragged or projecting edges which might injure the user. It will further be found in practice that an aperture made in this manner will have certain peculiar properties of permitting the liquid materials such as condensed milk, molasses, liquid soups, or other similar commodities, to readily flow from the can notwithstanding that the aperture may be relatively small, and this without necessarily providing the usual air vent at the other side of the can top, as is customary in the common way of getting such materials out of the cans.

There may, if desired, be provided a suitable plug member 16 comprising a handle portion 17 and a cylindrical extension 18 having a semi-circular portion 19 complementary in shape to the aperture which is cut in the top of the can. This plug member, when inserted in the opening, serves to prevent evaporation of the contents of the can as well as preventing the entrance of deleterious objects and materials through the aperture.

It will, of course, be understood that can openers constructed in accordance with the present invention may be provided in a variety of sizes, and that various other modifications may be made therein without departing from the spirit of the invention, as it will be readily understood that, for the removal of materials having large solid pieces therein, a much larger opening may be necessary in the can top, and for this purpose a larger sized opener would, of course, be employed.

Having thus described the nature and characteristic features of my present invention, what I claim as new and desire to secure by Letters Patent is:

1. A can opener comprising a semi-circular knife member, said knife member terminating in a point and having sharpened edges diverging from said point to the side margins of the knife member, and a member extending across between the upper limits of the sharpened edges of the knife member forming a shoulder in conjunction there-

with, said shoulder being adapted to engage and bend inwardly the material of the can top cut by the edges of the knife member.

2. A can opener comprising a knob-like handle having an extending portion, a knife member carried by and extending below said extension, said knife member terminating in a point and having sharpened edges diverging from said point to the side margins of the knife member, and means forming a shoulder extending across on the extension of the handle between the upper limits of the sharpened edges of the knife member, said shoulder being adapted to engage and bend inwardly the material of the can top cut by the edges of the knife member.

3. A can opener comprising a knob-like handle having an extending portion, a knife member carried by and extending below said extension, said knife member terminating in a point and having sharpened edges diverging from said point to the side margins of the knife member, and a portion of the knife member engaging the extension of the handle and having a portion thereof extending diametrically across below the end of said extension to form a shoulder thereon, said shoulder being adapted to engage and bend inwardly the material of the can top cut by the edges of the knife member.

4. A can opener comprising a knob-like handle having a cylindrical extension, a semi-circular knife member carried by and extending below said cylindrical extension, said knife member terminating in a point and having sharpened edges diverging from said point to the side margins of the knife member, and a portion of said knife member bent inwardly and forming a shoulder extending diametrically across below said cylindrical extension, said shoulder being adapted to engage and bend inwardly the material of the can top cut by the edges of the knife member.

5. A can opener comprising a knob-like handle having a cylindrical extension, a semi-circular knife member carried by and extending below said cylindrical extension, said knife member terminating in a point and having sharpened edges diverging from said point to the side margins of the knife member, and a portion of said knife member being bent inwardly and mounted in a kerf in the cylindrical extension of the handle and having a portion thereof extending diametrically across below the end of said cylindrical extension to form a shoulder thereon, said shoulder being adapted to engage and bend inwardly the material of the can top cut by the edges of the knife member.

In testimony whereof, I have hereunto signed my name.

SAMUEL H. GARRETT.