D. H. COLES.

SAFETY CAN OPENER.

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1,096,602.

Patented May 12, 1914.

Fig. 1.

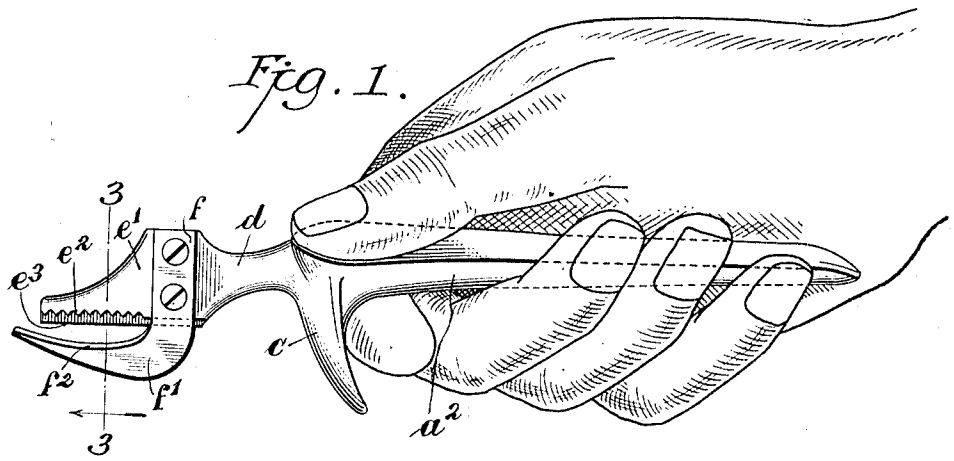


Fig. 2.

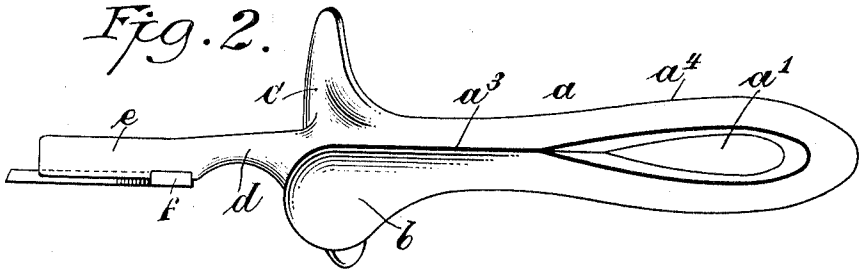
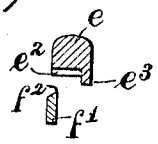


Fig. 3.



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UNITED STATES PATENT OFFICE.

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SAFETY CAN-OPENER.

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To all whom it may concern:

Be it known that I, DAVID H. COLES, a citizen of the United States of America, and a resident of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Safety Can-Openers, of which the following is a specification.

This invention has reference to improvements in can-openers and pertains particularly to safety can-openers which are designed and constructed for the purpose of protecting the hand, the fingers and especially the knuckles or joints of the fingers located between the metacarpal bone and the first phalanx against injury.

The cans opened by means of instruments usually are the so-called soldered tin cans and any scratch or wound resulting during the opening of the same may cause blood poisoning. For this reason it is advisable to provide safety devices on can-openers.

It is the special purpose of the present invention to produce can-openers with devices thereon which render their use perfectly safe.

For the purpose of reducing the cost of production the safety devices of the present can-openers form integral parts of the same and the whole opener, with the exception of the cutting device, is produced in one operation. These integral safety devices comprise essentially a curved shield extending from the handle downwardly and forming a rest for the index finger, while the other fingers grip the handle. On the left top portion of the shield a thumb rest is formed which gradually runs into the handle. The handle proper is formed in a peculiar relation to the protective shield and thumb rest, it being somewhat inclined to the right. This peculiar arrangement and relation between the protective shield, thumb rest and handle has been devised for the purpose of compelling the operator to grip the can-opener in the way in which it acts most protective. Some one attempting to grip this can-opener in a different manner would not be in a condition to open the can because it would be inconvenient and the operative parts would not be in proper position. This feature of the present can-opener is of great advantage because an unskilled person cannot use the can-opener in a manner and in a position relative to the can in which injury is likely to result. An integral neck connects the support for the cutter proper with the rest of the handle whereby the protective shield is somewhat away from the cutter. The cutter support itself is provided with gripping ribs and a side guide as required.

In order to render the invention entirely clear, reference is had to the accompanying drawing in which:

Figure 1 represents a safety can-opener embodying in desirable form the present improvements and held by a hand ready for operation. Fig. 2 illustrates the opener in top plan view. Fig. 3 is a cross-section on line 3—3 of Fig. 1.

Similar characters of reference denote like parts in all the figures.

In the drawing, *a* represents the handle which preferably has an elongated slot a^1 in the rear portion to avoid excessive weight. While the lower portion a^2 of the handle is rounded off the top portion forms a ridge a^3 extending from the inner end of the elongated slot and constitutes a border line of the thumb rest *b* located at the top side portion of the opener when the same is operated. The thumb rest is suitably hollowed out, as shown. Integral with the handle and the thumb rest there is a shield *c* which extends downwardly and to the right of the opener when the same is operated. The shield *c* further extends somewhat rearwardly and is slightly curved for the purpose of forming a convenient rest for the index finger, as shown in Figs. 1 and 2. In Fig. 1 of the drawing the opener is held by the hand ready for operation and both the thumb rest and the rest for the index finger below are clearly shown. The slight rearward inclination of the shield and its curve prevent any slipping of the index finger and conveniently fit any normal size of finger.

As shown in Fig. 2, the handle is not at a right angle to the longitudinal center line of the opener but somewhat inclined toward the right when the opener is operated. This makes the grip of the handle very convenient, while a handle at a right angle to the horizontal center line of the opener would inconvenience the hand.

From the upper portion of the shield adjoining the thumb rest and in line with the handle there is a slightly curved integral neck *d* which extends into the cutter support *e*. The cutter support comprises a wide por-

tion e^1 which gradually narrows down at the front end. On the wide portion e^1 of the cutter support e there is secured by screws or otherwise a cutter f having a lower portion f^1 at nearly a right angle thereto and a cutting edge f^2 slightly curved but almost parallel to the ribbed lower surface e^2 of the cutter support. A longitudinal guide e^3 extends somewhat beyond the ribbed bottom surface of the support.

The entire can-opener is made in one piece except the cutter which must be of harder material and therefore is made separately. The shield and thumb rest, being produced simultaneously with the opener, do not increase the cost although they represent protective devices of great advantage. As previously stated, there exists a certain relation between the various protective parts and the handle. The shield extends downwardly having its principal portion to the right, it is slightly curved and slightly inclined toward the handle to form a convenient rest for the index finger, the thumb rest is slightly inclined to the left, and the handle slightly inclined toward the right from the top ridge, therefore, the operator is compelled to grip the opener in the proper manner and the inner edge a^4 of the handle then rests preferably in the line formed by the end of the palm of the hand and the bases of the fingers. In order to conveniently locate preferably in the line between the end of the palm and the bases of the fingers, the handle is also slightly curved in a downward direction, as is shown in Fig. 1.

I claim as my invention:

1. A safety can-opener comprising essentially a handle, a downwardly curved shield having its main portion to the right, a thumb rest formed at the left top portion of the shield and handle, an integral neck extending from the handle, a cutter support integral with said neck, and a cutter, said shield being slightly inclined toward the handle, the thumb rest toward the left and the handle toward the right from the center line of the opener and slightly in a downward direction.

2. In a safety can-opener, a handle, a downwardly curved shield having its main portion to the right, and a thumb rest formed at the left top portion of the shield and handle, said shield being slightly inclined toward the handle, the thumb rest toward the left and the handle toward the right from the center line of the opener and slightly in a downward direction.

3. In a safety can-opener, a handle, a downwardly curved shield having its main portion to the right and slightly inclined toward the handle to form a rest for the index finger, and a thumb rest formed at the left top portion of the shield and handle slightly inclined toward the left from the center line of the opener.

Signed at New York, N. Y., this 10th day of January, 1914.

DAVID H. COLES.

Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."