F. WHITE & F. WINKLER.

CAN OPENER.

APPLICATION FILED MAR. 26, 1903.

NO MODEL.

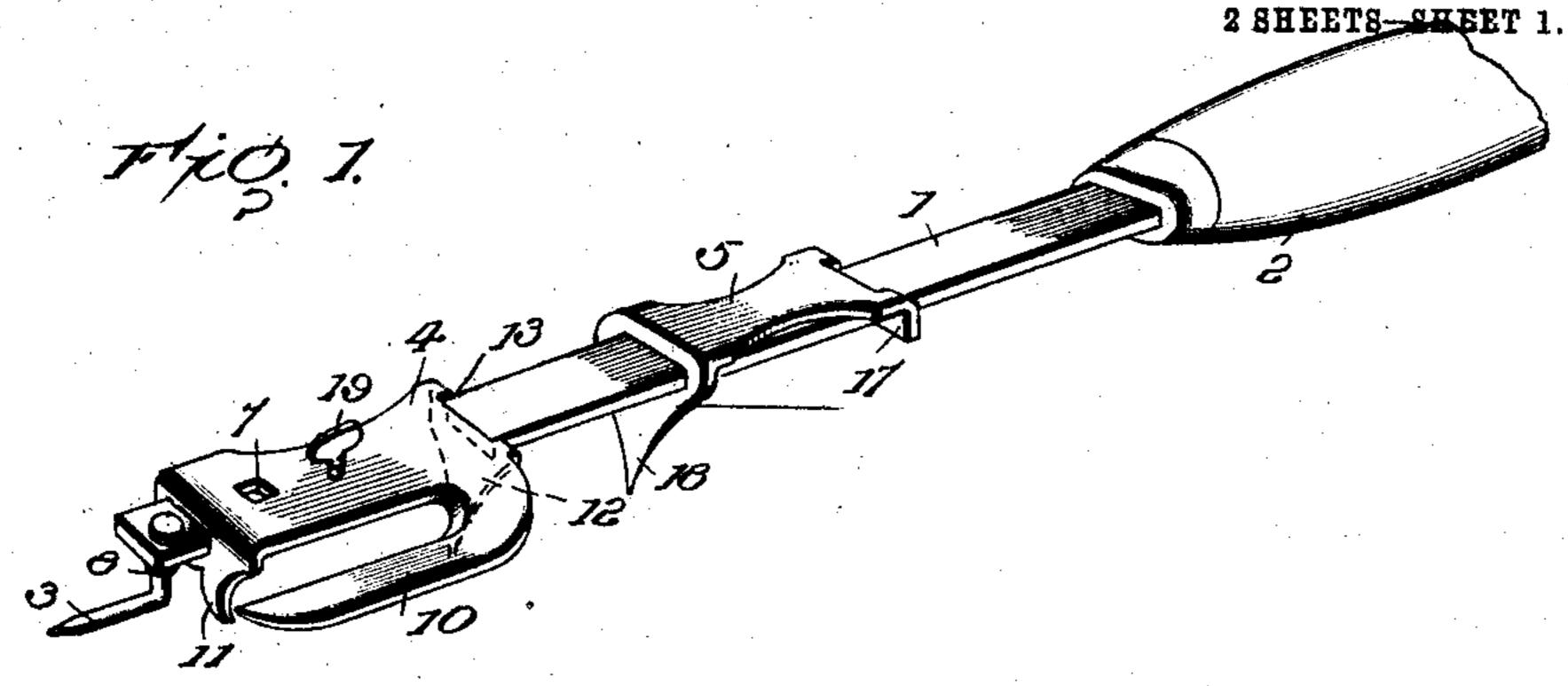


Fig. 2.

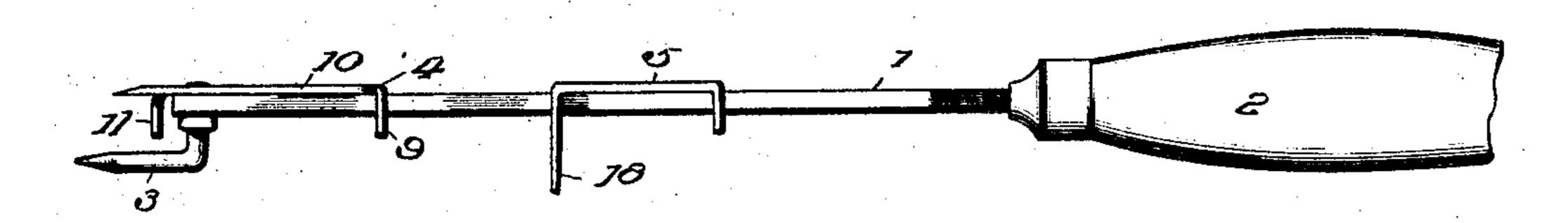


Fig. 3.

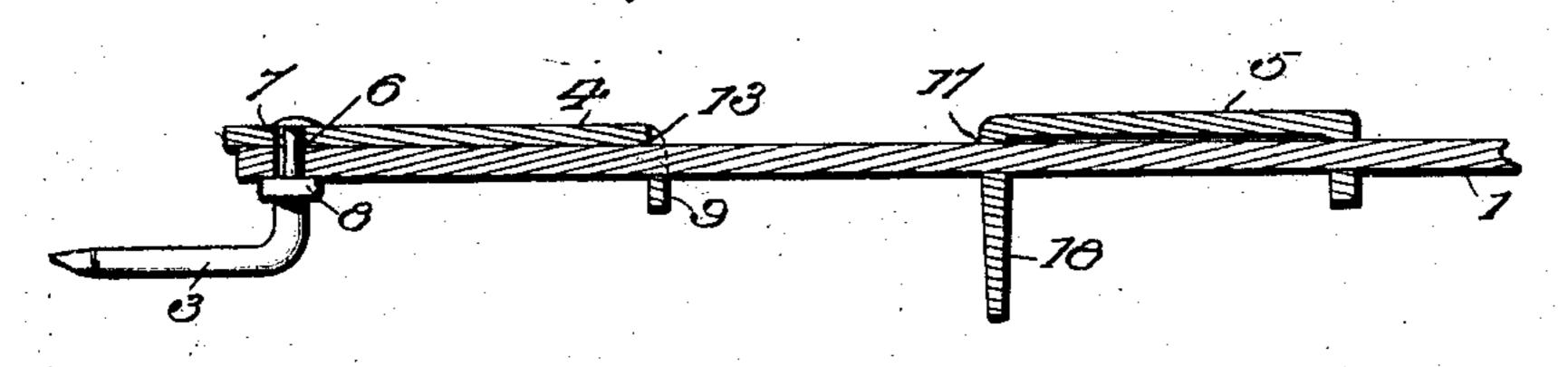
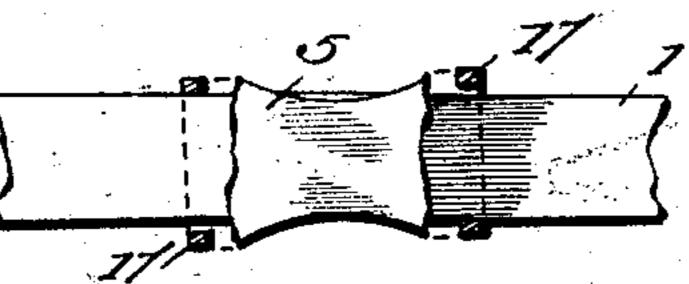


Fig. 4.

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Frank White Fred Winkler

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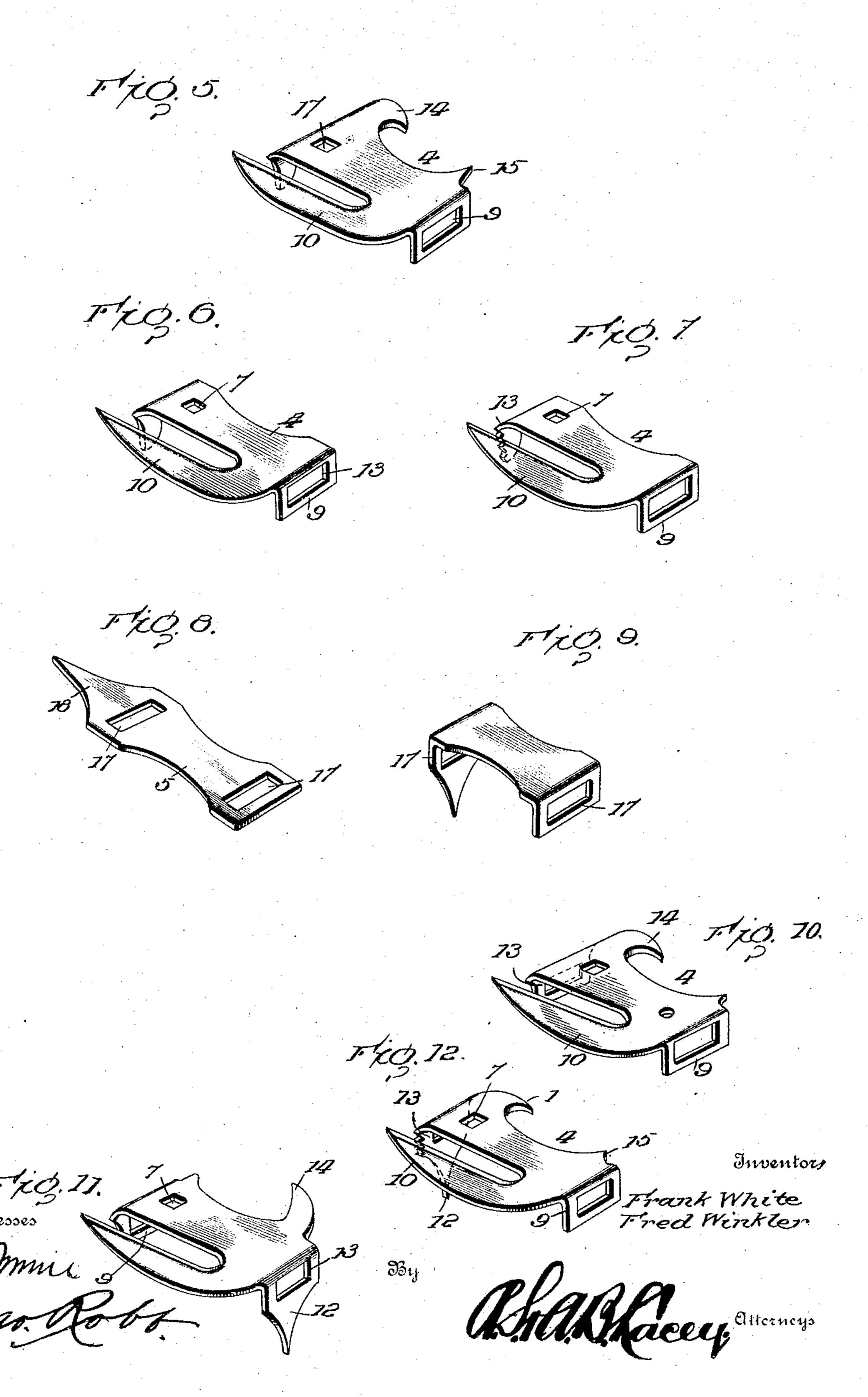
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2 SHEETS—SHEET 2.



United States Patent Office.

FRANK WHITE AND FRED WINKLER, OF NEWARK, NEW JERSEY; SAID WINKLER ASSIGNOR TO SAID WHITE.

CAN-OPENER.

SPECIFICATION forming part of Letters Patent No. 765,450, dated July 19, 1904.

Application filed March 26, 1903. Serial No. 149,731. (No model.)

To all whom it may concern:

Be it known that we, Frank White and Fred Winkler, citizens of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Can-Openers, of which the following is a specification.

This invention provides in a single implement means for cutting the tops of metal packages, such as commonly employed for receiving food, either in straight lines or a circle, means for catching and withdrawing the portion when cut, and means for removing bottle-caps and at the same time puncturing them to prevent their reuse.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and drawings hereto attached.

While the essential and characteristic features of the invention are susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of an implement embodying the invention. Fig. 2 is a side view of a modification. Fig. 3 is a lon-30 gitudinal section of the implement illustrated in Fig. 2. Fig. 4 is a perspective view of the blank from which the head is formed. Fig. 5 is a perspective view of the head formed from the blank illustrated in Fig. 4. Figs. 35 6 and 7 show modifications. Fig. 8 is a perspective view of the blank from which the slide is constructed. Fig. 9 is a perspective view of the slide formed from the blank illustrated in Fig. 8. Fig. 10 is a perspective view of a 40 modification, showing the head provided with terminal loops or keepers. Fig. 11 is a modification of the form of head shown in Fig. 11. Fig. 12 is a perspective view of a modification of the head shown in Fig. 12, the cutter be-45 ing at the front end. Fig. 13 is a detail view showing the manner of securing the slide upon the bar by a binding action of the loops or

Corresponding and like parts are referred

keepers.

to in the following description and indicated 5° in all the views of the drawings by the same reference characters.

The implement comprises, essentially, a bar 1, provided at one end with a handle-grip 2 and at its opposite end with a spur or point 55 forming a pivot 3, about which the implement turns when removing a circular portion from a part of the can or package to be opened. The bar 1 may be of any cross-sectional outline, the same being immaterial within the 60 purview of the invention.

The head 4, as well as the slide 5, is formed of a sheet-metal blank, same being struck up from sheet-steel and bent substantially as shown to provide the several coöperating 65 parts. Obviously the head may be cast or otherwise formed. The head may be constructed to slide upon the bar 1 or may be fastened thereto, according to the particular construction and arrangement of parts. For se- 7° curing the head 4 to bar 1 the part 3 is made use of, the shank 6 being passed through an opening 7 near the outer end of said head. The shank 6 is made angular, preferably square in cross-section, and the openings in the bar 75 1 and head 4 correspond in outline to shank 6 to receive same and prevent possible turning of the part 3 when secured in place. A shoulder 8 is provided at the base of shank 6 and limits the movement of the part 3 in one direc-80 tion, the projecting end of the shank being upset or riveted, so as to confine either part 1 or parts 4 and 1 between shoulder 8 and the upset end of the shank. The shank portion of the pivot 3 is bent about at a right angle 85 to cause the outer portion to project in a plane about parallel with bar 1, so as to engage under the part of the package when opening same in the manner well understood. When the head 4 is stationary, it is secured at its 9° front end to bar 1 by pivot 3, as shown most clearly in Figs. 2 and 3, and its rear end is provided with a loop or keeper 9 to receive said bar.

The head 4 is provided at one edge with a 95 longitudinal cutter 10, branching from the head at one end. A fulcrum 11 is provided at the end of the head 4 adjacent to the point

of cutter 10 and may comprise any number of teeth or points, as shown most clearly in Figs. 1, 7, and 12. The points of the fulcrum 11 indent the top of the can or package being opened and prevent slipping of the implement and insure positive operation of the cutter 10 when the tool or device is in active operation. In some instances the head may be provided with an end cutter, as shown at 12 in Figs. 1, 11, and 12, same being arranged either at the

10 11, and 12, same being arranged either at the front end, as shown in Fig. 12, or at the rear end, as illustrated in Figs. 1 and 11. In the form of head provided with end cutter 12 it is essential that the head be mounted for sliding movement upon bar 1. Hence a second

loop or keeper 13 is provided for coöperation with the loop or keeper 9

with the loop or keeper 9. After a metal can or package has been opened it not infrequently happens that diffi-20 culty is experienced in removing the cut portion, and to obviate this annoyance the head is provided with a hook 14, located at either end thereof, same being designed to be passed through the cut and engaged under the part 25 of the top separated by said cut, so as to readily remove same when it is required to remove the contents of the can or package. This hook 14 is susceptible for another application—namely, to facilitate the removal of 3° metal caps of bottles, jars, and like packages. In order that the hook may be successfully used in the latter capacity, it is essential that a spur or point 15 be provided, same being located a distance from the hook 14. This 35 spur or point engages with the cap 16 and prevents slipping of the hook 14 when the impackage. The point or spur 15 also serves to prevent reuse of cap 16 by puncturing same, 40 and it is noted that advantage may be taken of this spur to provide an opening in the can or package to be opened for the entrance of

to be used in opening of the package.

The slide 5, like head 4, is preferably constructed of a sheet-metal blank, the end portions being bent about at a right angle to the body of the blank and formed with openings for the passage of bar 1, upon which the slide is loosely mounted. Keepers or loops 17 are

the point of the cutter 10 when the latter is

provided at the ends of the slide to receive bar 1, which passes loosely therethrough. Said slide is also provided with a cutter 18, similar in construction to cutter 12 and adapted for use in a like manner. The slide 5 is 55 adapted for use in connection with the pivot 3. The slide 5 and head 4, the latter when mounted for movement upon bar 1, have sufficient play between the loops or keepers to admit of a binding of the end keepers at di- 60 agonally opposite points, as shown in Fig. 14, to hold the part 4 or 5 in the adjusted position, so as to prevent slipping when pressure is brought to bear on the cutter 12 or 18 in the forward movement of the handle portion 2 of 65 the implement. This is indicated most clearly in Fig. 13 and is necessary to insure the ends of a circular cut meeting. After the blanks have been cut or pressed from the sheet-steel or other metal, the parts are bent to provide 70 the fulcrum 11 and lateral or offstanding loops or keepers for reception of bar 1, as most clearly indicated in the several views of the drawings.

While it is preferred to automatically se-75 cure the head 4 in an adjusted position when mounted for sliding movement upon the bar 1, yet positive means may be employed for this purpose, and, as shown, a clamp-screw 19 is threaded into an opening of the head and 80 is adapted to bear at its inner end against the side of bar 1 with sufficient force to secure

the head in the located position.

Having thus described the invention, what

is claimed as new is—

prevents slipping of the hook 14 when the implement is used for prying the cap from the package. The point or spur 15 also serves to prevent reuse of cap 16 by puncturing same, and it is noted that advantage may be taken of this spur to provide an opening in the can or package to be opened for the entrance of the point of the auttern 10 rehard the lattern.

In testimony whereof we affix our signatures

in presence of two witnesses.

FRANK WHITE. [L. s.]
FRED WINKLER. [L. s.]

Witnesses:

GEORGIA E. BOWIE, COMLY WORTHINGTON.