No. 713,472. Patented Nov. 11, 1902.

W. MAXWELL.

CAN OPENER.

(Application filed May 21, 1902.)

(No Model.)

FIG. 1.

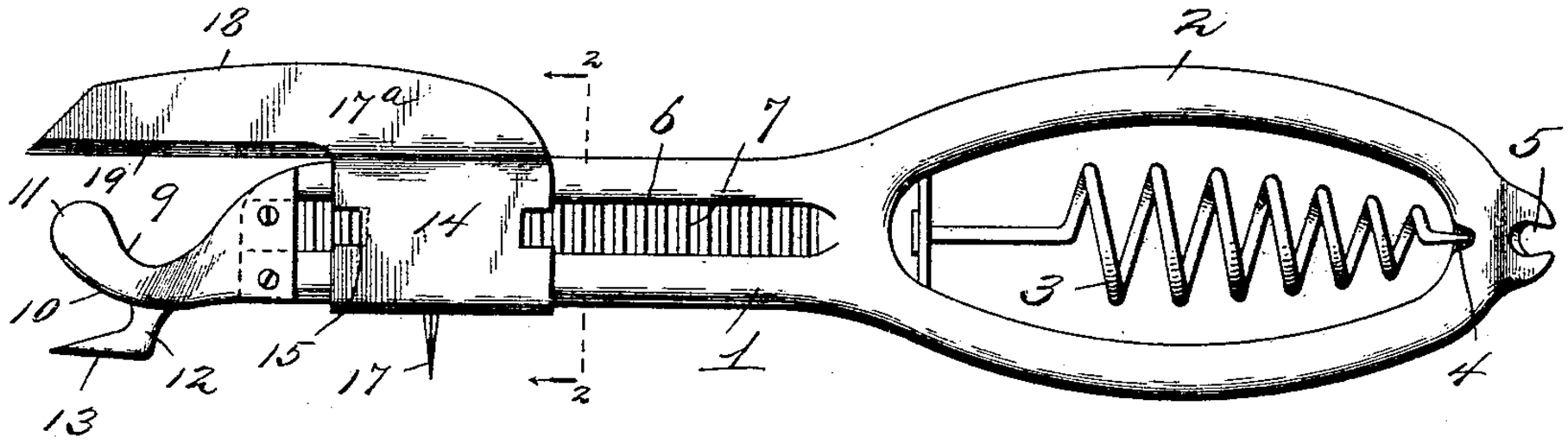


FIG. 2.

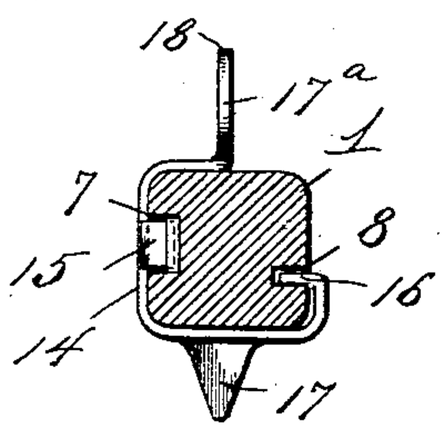


FIG. 3.

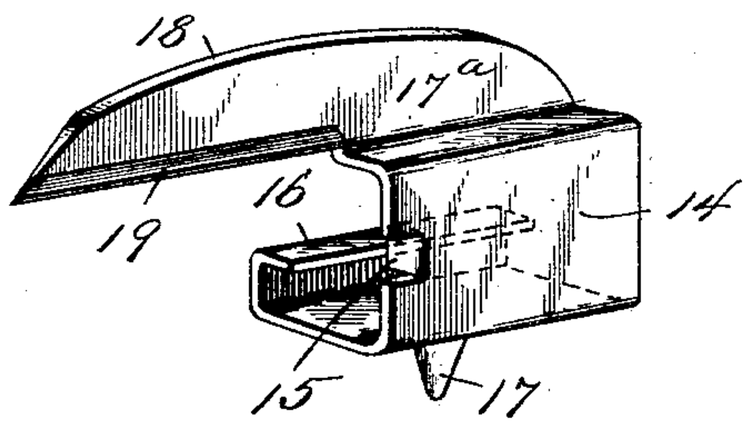


FIG. 4.

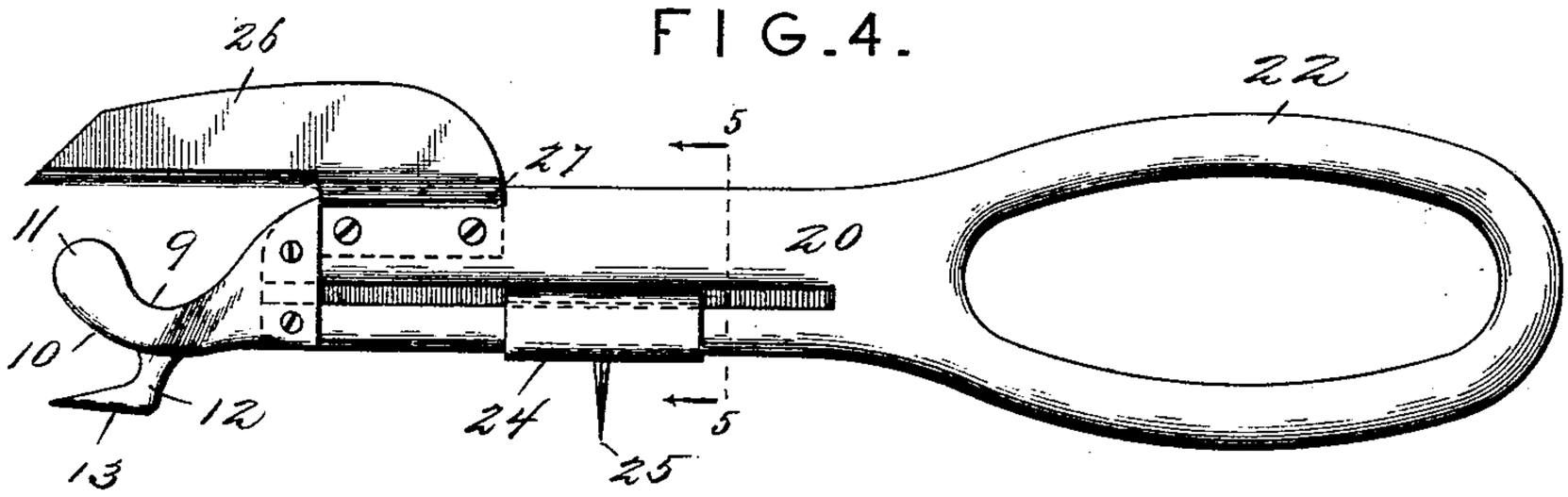


FIG. 5.

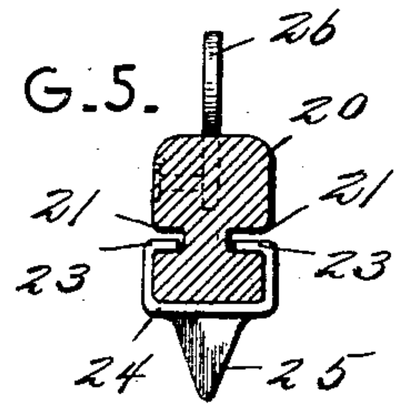
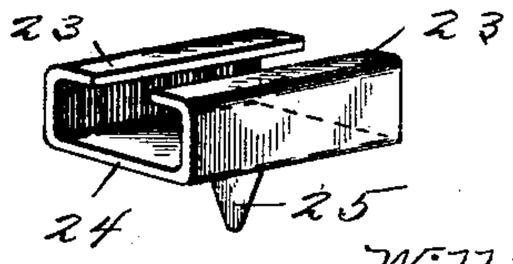


FIG. 6.



Witnesses

Harry L. Ames.

John H. Byrne.

Inventor

William Maxwell.

By Victor J. Evans

Attorney

UNITED STATES PATENT OFFICE.

WILLIAM MAXWELL, OF PITTSBURG, PENNSYLVANIA.

CAN-OPENER.

SPECIFICATION forming part of Letters Patent No. 713,472, dated November 11, 1902.

Application filed May 21, 1902. Serial No. 108,396. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM MAXWELL, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented new and useful Improvements in Can-Openers, of which the following is a specification.

This invention relates to can-openers; and the primary object of the same is to provide a simple and effective device adapted to open square, round, or oblong cans, and including in its organization a rim-cutter movable in the arc of a circle in performing the cutting operation and also a straight cutter for use with square or oblong cans, the rim-cutter being adjustable in relation to an axial pivot-terminal to adapt it to cans with round tops varying in diameter or to remove from the top of a round can as much of the metal as may be desired.

A further object of the invention is to include in one device means for cutting the top of a round can and also means for similarly operating in relation to a square, oblong, or other angularly-shaped can-top.

With these and other objects and advantages in view the invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation of a can-opener embodying the features of the invention. Fig. 2 is a transverse vertical section on the line 2 2, Fig. 1. Fig. 3 is a detail perspective view of an attachment including in its organization a rim-cutter or circularly-cutting can-top and a straight cutter for operating on can-tops having an angular contour. Fig. 4 is a side elevation of a can-opener embodying modifications in the construction of the same and also including the two forms of cutters. Fig. 5 is a transverse vertical section on the line 5 5, Fig. 4. Fig. 6 is a detail perspective view of an attachment adjustable on the opener and having a rim-cutter in connection therewith and which is movable in the arc of a circle during the cutting operation.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numeral 1 designates a shank having a handle 2, which in the present instance is of elliptical form and open and has a corkscrew 3 pivotally mounted therein and adapted to be opened outwardly therefrom and closed thereinto, the point of the corkscrew when closed being shielded by entering a recess 4 in the center of the rear end portion of the handle 2. The rear terminal of the handle 2 is formed with a claw 5 for various uses. The shank 1 has a groove 6 in the center of one side, and the inner wall of said groove, which is vertically disposed when the can-opener is arranged for use, is formed with teeth 7. In the opposite side of the shank, below the plane of the center thereof, a groove 8 is constructed and is of considerably less vertical extent than the groove 6, but extends into the body of the shank a greater distance than the latter groove. On the front extremity of the shank 1 a fulcrum-head 9 is secured and provided with an under convex bearing-surface 10 and an upturned rounded terminal 11, an axial pivot projection 12 depending from the convex under side of the head 9. The said axial pivot projection 12 is formed with a pointed extremity 13 to penetrate the can-top, and when the can-opener is moved in the arc of a circle the said axial pivot projection retains it in proper applied position and also acts as a a fulcrum therefor. During the circular movement of the can-opener the convex under surface of the head 9 loosely engages the can-top.

Movably engaging the shank 1, in the form of can-opener shown by Fig. 1, is a body 14, constructed of suitable sheet metal and bent into shape to embrace the side of the shank 1 having the groove 6 therein, and at the center of one end of the part of the body which embraces the shank, as set forth, an inwardly-projecting tongue 15 is formed to engage the teeth 7. The opposite side of the body 14 extends upwardly only a short distance over the side of the shank opposite that having the groove 6 therein and has an inwardly-projecting right-angular flange 16 extending full length thereof, which loosely enters the groove 8. The body 14 is of such dimensions relatively to the shank 1 that it can be moved laterally to disengage the tongue 15 from the teeth 7 to adjust said body and as clearly in-

dicated by Fig. 2. Depending from the center of the bottom of the body is a substantially triangular-shaped cutter 17, which has its opposite faces disposed in planes at right angles to the longitudinal extent of the said bottom. This cutter 17 is in alinement with the axial pivot projection 12, depending from the fulcrum-head 9, and may be disposed at varying distances relatively to the latter by shifting the body 14 on the shank 1, and thereby adapt the opener for cutting can-tops having different diameters or forming large or small openings in a can-top. The top of the body 14 is continued into a longitudinally-extending cutter 17ª, arranged in a plane at right angles to said top and having one edge 18 of arcuate form and the opposite edge, which is clear of the top of the body, sharpened, as at 19, whereby the opener may be reversed and the cutter 17 used for removing the tops of the cans having a square, rectangular, or other angular contour.

The form of the opener shown by Figs. 4, 5, and 6 embodies a shank 20, similar to that heretofore described, with the exception that similar grooves 21 are formed in the opposite sides thereof and the teeth 7, heretofore referred to, are dispensed with. The handle 22 is of open elliptical form and is devoid of the corkscrew and claw embodied in the handle shown by Fig. 1. The fulcrum-head 9 in this modified form of the device is in all respects similar to that shown in Fig. 1, and reference-numerals designating corresponding parts are applied thereto.

The grooves 21 are engaged by opposite inturned flanges 23 at the upper terminals of a body 24. The body 24 has close frictional engagement with the under portion of the shank 20, and depending from the bottom thereof is a cutter 25, similar in construction and position in relation to said bottom as the cutter 17, forming a part of the body 14, heretofore explained. The frictional engagement of the body 24 with the shank 20 is sufficiently strong to resist any tendency toward longitudinal movement of the said body on the shank after the adjustment desired has been made, and as the cutting operation is effected by the cutter 17 in a plane at right angles to the flanges 23 and slots 21 the said body will be maintained in its adjusted position positively by its frictional application and without employing other means to hold it. To the edge of the shank 20 opposite that from which the cutter 25 projects a cutter 26 is secured, which is similar in all respects to the cutter 17ª, heretofore explained, and provided with a tang 27, secured in a suitable slot in the forward extremity of the shank 20. The cutter 26 is used for removing tops from square, rectangular, or other angular cans.

It will be seen that the improved can-opener combines in its structure two different cutters, which are adapted for use in removing the tops of either round or angular cans, and, furthermore, one implement embodies in its structure the features heretofore usually resident in two separate implements. The cost of manufacture compared to that of two separate implements having the individual cutters solely carried thereby is immaterial in view of the advantages arising from the combination of the two cutters in one implement. A further advantage resides in the adjustability of the cutter 17 or 25 in relation to the axial pivot projection 12, whereby can-tops having different diameters may be operated upon or different-sized openings may be formed in different can-tops. The material used in constructing the several parts will be that best adapted for the purpose, and though the preferred constructions have been disclosed it will be understood that changes in the form, proportions, dimensions, and minor details may be resorted to without departing from the spirit of the invention.

Having thus fully described the invention, what is claimed as new is—

1. A can-opener, comprising a shank having a handle at one end and provided with grooves in the opposite sides adjacent to the front extremity, said grooves extending only partially through the shank, and a body slidable on the shank and having inwardly-bent portions movably engaging said grooves and also provided with a depending cutter in alinement with the said pivot projection.

2. A can-opener, comprising a shank having a handle at one end and an axial pivot projection at the opposite end, the opposite sides of the shank being formed with grooves and one of the latter having teeth therein, and a body slidable on the shank and having a flange at one side engaging one groove, and a projection at the opposite side movable in the opposite groove, said body also having a depending cutter in alinement with the pivot projection and a forwardly-extending cutter integrally constructed with the opposite side whereby the can-opener may be used for opening cans of different shapes.

3. A can-opener comprising a shank with a handle at one end and an axial pivot projection at the opposite end, the said shank having grooves in its opposite sides and one of the grooves provided with teeth, and a body slidably mounted on the shank and having a flange engaging one of the grooves and a tongue projecting into the other, the said body having different forms of cutters at opposite sides thereof.

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

WILLIAM MAXWELL.

Witnesses:

CHRISSIE MAXWELL,

ANNA DE YANN.