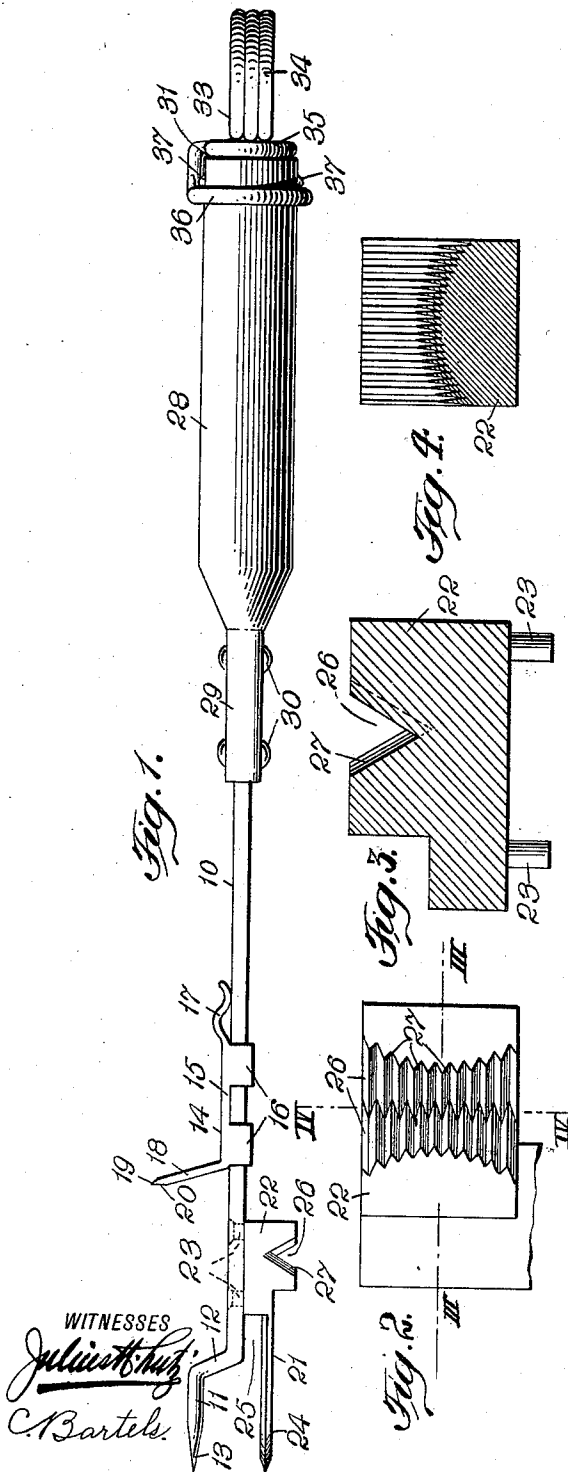


M. E. HEINZMAN.
COMBINATION TOOL.
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Patented June 27, 1911.



UNITED STATES PATENT OFFICE.

MAY E. HEINZMAN, OF BEDFORD, NEW YORK.

COMBINATION-TOOL.

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Specification of Letters Patent. Patented June 27, 1911.

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To all whom it may concern:

Be it known that I, MAY E. HEINZMAN, a citizen of the United States, and a resident of Bedford, county of Westchester, and State of New York, have invented certain new and useful Improvements in Combination-Tools, of which the following is a full, clear, and exact description.

This invention relates more particularly to a household tool adapted as a knife sharpener.

The primary object of the invention is to provide a simple and efficient tool which is so constructed that the device may have a part thereof provided with means whereby knives or similar articles may be sharpened.

With this and other objects in view, the invention will be hereinafter more particularly described with reference to the accompanying drawings, which form a part of this specification, and will then be pointed out in the claims at the end of the description.

In the drawings, Figure 1 is a side elevation of one form of tool embodying my invention. Fig. 2 is an enlarged plan view of the knife sharpener. Fig. 3 is a transverse section taken on the line III—III of Fig. 2; and Fig. 4 is a section taken on the line IV—IV of Fig. 2, showing a different section of the knife sharpener.

The tool may have a bar-like shank or member 10, the forward end of which may be reduced to provide a substantially round end 11, which may be bent, as at 12, and provided with a pointed end, as at 13, to adapt the same to be forced into the center of the top of the can to be opened, and slidably held on the shank of the member 10 is a cutting device 14 adapted for use in opening circular cans. This device 14 is provided with a body 15, having angular clips or ends 16 which are adapted to be passed over the member 10 to adapt the device 14 to slide along said member 10 to different distances from the end 11 of said member 10 according to the size of the can, and said body 15 of the device 14 has a yielding finger or part 17 which is adapted to engage the outer surface of the shank or member 10 to hold said device in its adjusted position. The device 14 has a cutting member 18 which may be formed integral therewith, and said cutting member or blade has an angular cutting edge, as 19, which is beveled to a greater extent on one side, as at 20, Fig. 4, than on

the other so as to force and tend to keep the device toward the outer edge or side of the can. The device has its pointed end 13 forced through the part to be opened centrally of the can and then moved to a horizontal position substantially parallel with the can top, so that the angular part 12 will serve as a pivot for the tool, and when the cutter or member 18 is adjusted to the proper extent according to the size of the can, the device may be moved in a circular direction to quickly cut the entire can top or a part only thereof as desired.

As a means for cutting cans which are rectangular or of a similar shape in cross-section, I provide a cutter, as 21, which may be formed integral with the block 22, the latter being provided with pins or projections 23 which may be passed through openings in the body of the member 10, and when the ends are spread or beaded the said block 22 and the cutter 21 will be rigidly held to the member 10, the said pins serving as rivets. The cutter 21 may be curved and provided with a cutting edge, as 24, which is adapted to cut the metal can, and said blade or cutter 24 is spaced from the member 10 to provide a recess or opening 25 to permit the edge of the can to enter the same, thereby permitting the tool to rock back and forth and to be moved forward to cut the can top, said cutter being of the shape and arranged in the manner shown or it may be of any other construction and arranged in any desired way.

The block 22 may be provided with means for sharpening knives or other edged tools. As shown, the block is substantially rectangular in form and is provided with a transverse groove 26 which may be substantially V-shaped in cross-section, and the sides of which may incline at substantially thirty degrees or otherwise. This groove is flared from the center outwardly lengthwise of the groove, as shown in Fig. 2, to provide curved surfaces, and the bottom or sharpening surface is also curved, as shown in Fig. 4, so that the knife or other article may be drawn along the groove and engage the surface thereof at one point only or it may be moved corresponding to the shape of the groove to engage a greater surface.

The walls of the groove 26 are roughened or formed with teeth or projections 27, corresponding to the surface of an ordinary file. The teeth 27 are so made or formed on

the opposite walls of the groove 26 that they will intersect each other, that is, the apex of a tooth on one wall at the base of the groove will intersect a tooth on the opposite wall at the base of one side of said last mentioned tooth and vice versa. Such construction is best shown in Fig. 2, and the sharpening edges or apexes of the teeth on one side of the groove are thereby caused to meet at the base of the groove of the lower edges or bases of the teeth on the opposite wall. By this construction double the number of sharpening edges are provided that would be provided if the teeth on each side or wall of the groove were arranged so that the sharpening edges or apexes of the teeth on that side met the sharpening edges of the teeth on the opposite side and one continuous sharpening edge provided. It will thus be observed that by such a construction of curved sides and bottom that only two or three of the teeth of sharpening edges are in action at the same time, the result being that the device does its work more rapidly, gives a neater and cleaner finish to the cutting edge of the instrument being sharpened and insures the utilization of all of the teeth, thus lengthening the time during which said device may be used, all of which advantages are not possessed by the usual sharpening device with straight sides and bottom. In use the tool or instrument being sharpened would invariably be drawn through the device with a downward and lateral movement and as the sides of the device are curved the full length of each tooth would be brought into action and the tool or instrument would not have a tendency to fly out of the device as would happen in the case of a straight sided sharpener. By this means an effective sharpening device is provided in which a knife or other tool may have its edge sharpened by simply drawing the same one or more times along the groove.

A tubular handle 28 is provided, and this handle may have its end 29 reduced by spreading the tubular handle and then cutting away the sides thereof corresponding to substantially the size of the body of the member 10, and said member 10 may be fastened to the end 29 by means of the rivets 30. This handle 28 is open at its outer end 31 and adapted to fit within said handle is the helical part of a corkscrew 33. The corkscrew 33 may be made of a single piece of wire and bent to form a plurality of convolutions to provide a handle 34, and a coiled or spiral part 35 which is adapted to engage the cork in case the corkscrew is forced too far therein. The corkscrew is provided with a looped portion 36 which is large enough to fit about the handle 28, and

this looped portion is adapted to yield sufficiently to be forced over projections 37 extending outwardly from the tool handle so that the corkscrew is detachably held to the handle. As will be seen, the corkscrew, by means of the handle or fingering part 34, may be withdrawn from the handle 28 of the tool and used in the ordinary way, and when in the position shown in Figs. 1 and 2, the said handle part 34 may be utilized to hang the tool upon a nail or other support. The handle part 34 may have the opening there-through large enough for the handle 28 of the tool to pass through the same, so that the tool may be utilized as a gripping means to better adapt the corkscrew for extracting corks or the like from a bottle or for other purposes.

From the foregoing it will be seen that a simple and efficient tool is provided whereby different forms or shapes of cans may have their top or other part thereof readily cut in order that the contents of the can may be removed; that simple means are provided whereby one of the cutting elements may be adjusted along a part of the tool to suit various sizes of cans or receptacles; that said tool provides simple means for sharpening knives or other edged tools, and that said tool is adapted to hold a corkscrew and the latter so held as to serve as a means for hanging the tool upon a support thus adapting the tool to be used for various purposes.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. In a tool of the character described, a sharpening device having a substantially V-shaped groove with curved sides and curved lower edge and with sharpening teeth along the sides the edges of which intersect to provide a proper sharpening edge.

2. In a tool of the character described, a sharpening device formed of a single block of material having a substantially V-shaped groove with curved sides and with teeth along the sides the edges of which intersect to provide a proper sharpening edge.

3. In a tool of the character described, a sharpening device formed of a single block of material having a substantially V-shaped groove with teeth along the sides, and a curved lower edge, the edges of the teeth intersecting to provide a proper sharpening edge.

This specification signed and witnessed this 27th day of Feby. A. D. 1909.

MAY E. HEINZMAN.

Witnesses:

W. J. O'BRIEN,
L. COMERFORD.