Feb. 4, 1941. E. CULLEN 2,230,376

HOUSEHOLD APPLIANCE

Filed June 22, 1938

FIG. 1.

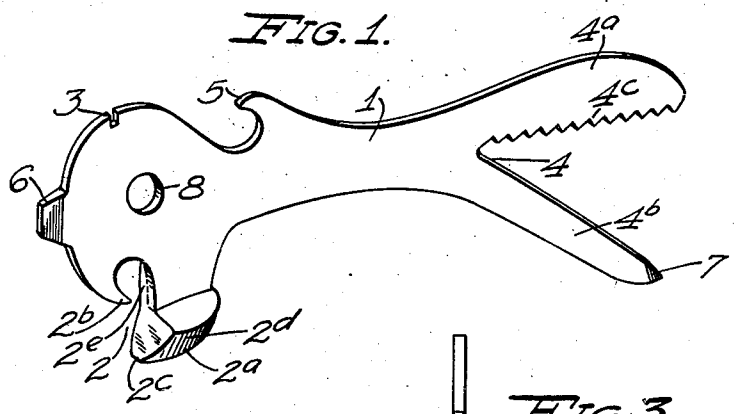


FIG. 3.

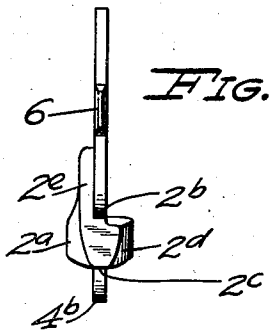
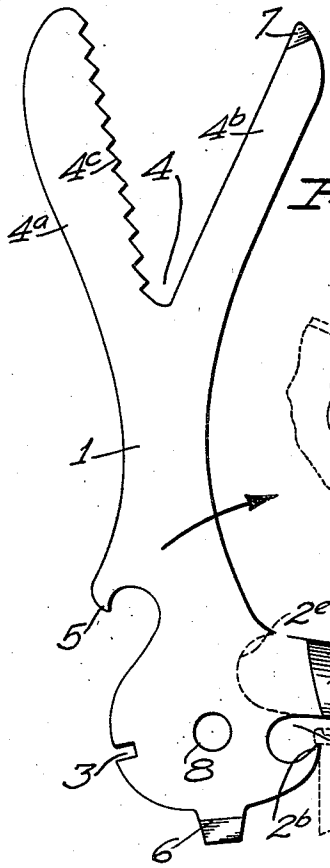


FIG. 2.



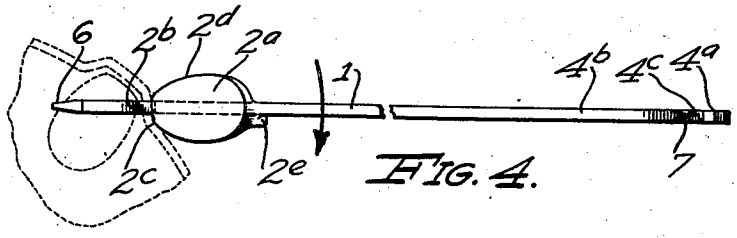
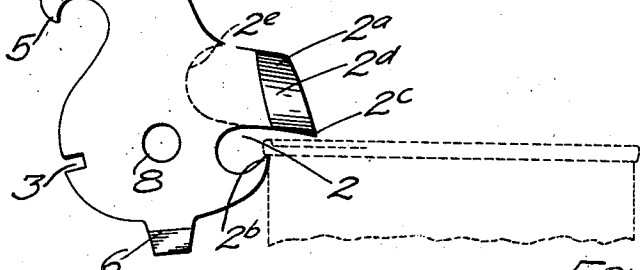


FIG. 4.



INVENTOR.
ERNEST CULLEN
BY William B. Hall
ATTORNEY

Patented Feb. 4, 1941 2,230,376

UNITED STATES PATENT OFFICE

2,230,376

HOUSEHOLD APPLIANCE

Ernest Cullen, San Diego, Calif., assignor to John B. Smiley, Los Angeles, Calif.

Application June 22, 1938, Serial No. 215,205

4 Claims. (Cl. 30—16)

My present invention relates to a household appliance, particularly to a combination tool for use in the house, store, or other place of business.

One of the principal objects of this invention is to provide an appliance of this class in which devices of various kinds or for performing various functions are not only combined in a handy tool but in which one part or portion aids another or other parts or portions in performing their respective functions.

An important object also is the provision of a novel and simple means for opening or making pouring holes in cans, and also to provide simple means in connection therewith for making pouring spouts on the cans in association with the openings or holes.

A further object is the provision of means for making pouring holes in metal cans by folding or rolling inwardly the metal from substantially all edges forming the opening.

Another object of this invention is to provide an appliance of this class which is simple and economical to make, and which will not readily deteriorate or get out of order.

A further object of this invention is to provide an appliance of this class which, when used to open cans containing carbonated beverages, will close the opening during the punching operation so that the contents cannot escape due to the effervescence of the liquid. In other words, the puncturing member, during its operation, at all times fills the opening while being made, and the puncturing member for this reason is made solid and of substantial thickness.

With these and other objects in view, as will appear hereinafter, I have devised a household appliance having certain novel features of construction, combination and arrangement of parts and portions, as will be hereinafter described in detail and particularly set forth in the appended claims, reference being had to the accompanying drawing and to the characters of reference thereon, which form a part of this application, in which:

Fig. 1 is a perspective view taken from one side and front end of my household appliance in a preferred form;

Fig. 2 is a side view thereof, showing the same in a position about to puncture a can, shown fragmentarily and by broken lines;

Fig. 3 is a front end view thereof; and,

Fig. 4 is a bottom edge view thereof.

The household appliance illustrated consists essentially of a substantially flat member 1, which provides the handle for the several elements of the tool, comprising a can opener, punch, or hole forming portion 2, a spout forming portion 3, a gripping jaw portion 4, a bottle cap opener or remover 5, a screw driver or pressed-down lid remover 6 and a pointed prying portion 7.

The device shown may be cast or forged integrally, or the device may be formed of a main stamping with other cast or forged parts welded or otherwise secured thereto.

The can opener, punch, or hole forming portion 2 consists of a piercing or puncturing member 2^a, which may be cast or forged and welded, or riveted and welded, to the edge and near one end of the flat or handle member 1, opposite or spaced from a pointed hook portion 2^b. The pointed portion of the hook forms a pivot which is placed under the cover seam at the outside of the can, and about which the device is tilted, in the direction of the arrow, for puncturing or perforating the can with the member 2^a immediately adjacent the periphery of the can cover or other wall. This member has a front face 2^c which has a short and sharp lower edge and diverges to the opposite sides from this sharp lower edge to form substantially a triangular front face. The lateral sides 2^d of this puncturing or perforating member diverge backwardly from the lateral edges of the front face a slight distance, and then converge backwardly in gradual curves. Thus, when the lower sharp edge of the face 2^c engages and is forced into the can cover or wall, the latter is pierced so that the whole face gradually enters the can cover or wall at an angle. As the appliance is tilted further, the flaring or diverging sides 2^d of the member 2^a enlarge the perforation in the can until a relatively large pouring opening is formed by folding inwardly and backwardly the metal from substantially all edges forming the opening. The tilting movement of the device is limited by the downwardly and backwardly extending arm or jaw element, which will be described hereafter. This arm engages the can cover or wall, thereby preventing the perforating member from wholly passing through the perforated wall and thereby preventing said member from becoming stuck or difficult of quick removal.

This member 2^a has a securing flange 2^e at one side of its longitudinal median plane. This flange is positioned against and preferably welded to one side of the handle member. Thus, the puncturing member is substantially in alignment with the plane of the handle member.

The underside of the puncturing or perforating member is relatively flat, and because of the extended area of its bottom side and because of its weight, it provides an efficient hammer.

The spout forming portion 3 is located at the same end of the appliance but at the edge opposite the puncturing or perforating portion. This portion 3 is made by merely providing a relatively narrow slot transversely across said edge. This device is placed, after the perforating operation, with the slotted portion over the flange or edge of the can, and then twisted in the direction of the arrow, as shown in Fig. 4. This operation is performed twice, namely, at the opposite sides of the spout to be formed, as shown by broken lines, thereby providing effective pouring means.

The gripping jaw portion 4 is located at the opposite end of the handle member, and consists of jaw elements 4^a and 4^b, with teeth 4^c on the inner edge of the jaw element 4^a. The latter jaw element is preferably a part of or an elongation of the handle member 1, while the jaw element 4^b, arranged substantially in the same plane, diverges outwardly therefrom at the same side of the handle member as the can puncturing portion. Both jaw elements are gradually rounded at their outer edges so that the two together provide a convenient grip for the hand while performing the perforating or punching operation. The teeth 4^c are arranged on the edge of the element 4^a adjacent the element 4^b.

It will be here noted that the element 4^a serves as an elongation for the handle member so as to provide a longer lever, while the element 4^b provides for a wide grip so that the device is not readily tilted to the side when using the puncturing means. This element 4^b also serves as a stop means against the perforated lid or other wall of the can, for limiting the insertion of the piercing or puncturing member into said lid or other wall.

The screw driver and pressed-down lid remover 6 is preferably arranged on the end of the handle member at which the puncturing and spout forming portions are located the jaw elements at the opposite end provide a wide handle grip for obtaining considerable leverage for the screw driver and pressed-down lid remover.

The bottle cap remover 5 is arranged on the edge having the spout forming portion but backwardly therefrom. The portion having the spout forming notch or slot is considerably rounded so that the portions of the cans, on which the spouts are to be formed, are readily accessible. This rounded contour of the spout forming portion also forms a novel and effective pivot portion for the cap remover 5.

The end of jaw element 4^b, at the inner edge thereof, is provided with a pointed portion 7 to facilitate a prying operation which is often needed in the opening of containers, and the like. This pointed prying portion 7 is so located on the device that injury to it or to the hands, cans, or caps will not easily result.

At the larger head end of the device, that is, at the end provided with the puncturing or perforating means, is provided a hole 8 whereby the appliance may be hung up.

Though I have shown and described a particular construction, combination, and arrangement of parts and portions, I do not wish to be limited to the same, but desire to include in the scope of my invention the construction, combination, and arrangement substantially as set forth in the appended claims.

I claim:

1. In a can opener, a handle, a hook on said handle, a solid puncturing member adjacent the hook having diverging sides, said diverging away from the hook, the portion adjacent the hook adapted to initially engage the end wall of the can, said hook being open toward said puncturing member, said puncturing member having a flat puncturing surface and being of substantial thickness so as to fold the edges of the opening of the can inwardly, the flat or puncturing surface being adaptable as a hammer.

2. In a can opener, a handle, a hook at one end of said handle, a solid puncturing member between the hook and the other end of the handle, said puncturing member having diverging sides, said sides diverging away from the hook, the portion adjacent the hook adapted to initially engage the end wall of the can, said hook open toward said puncturing member, said puncturing member having a flat puncturing surface and being of substantial thickness so as to fold the edges of the opening of the can inwardly, the flat or puncturing surface being adaptable as a hammer.

3. In a can opener, a handle, a hook on said handle, a solid puncturing member adjacent the hook having diverging sides, said sides diverging away from the hook, the portion adjacent the hook adapted to initially engage the end wall of the can, said hook being open toward said puncturing member, said puncturing member having a flat puncturing surface and a closed margin and being of substantial thickness so as to fold the edges of the opening of the can inwardly, the flat or puncturing surface being adaptable as a hammer.

4. In a can opener, a handle, a hook at one end of said handle, a solid puncturing member between the hook and the other end of the handle, said puncturing member having diverging sides, said sides diverging away from the hook, the portion adjacent the hook adapted to initially engage the end wall of the can, said hook being open toward said puncturing member, said puncturing member having a flat puncturing surface and a closed margin and being of substantial thickness so as to fold the edges of the opening of the can inwardly, the flat or puncturing surface being adaptable as a hammer.

ERNEST CULLEN.