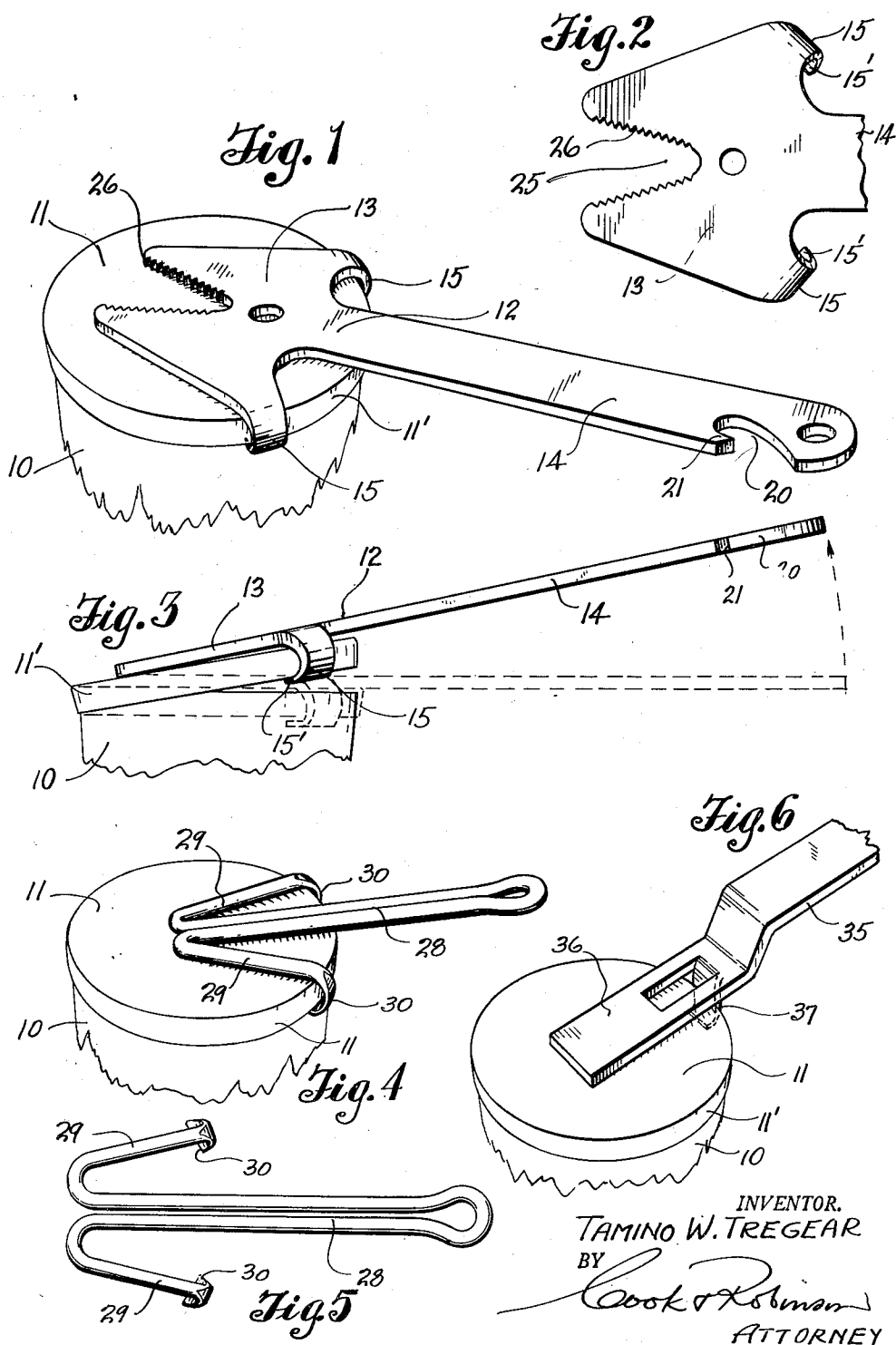


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FULCRUM TYPE CLOSURE REMOVER

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FULCRUM TYPE CLOSURE REMOVER

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1 Claim. (Cl. 81—3.46)

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This invention relates to devices designed for the removing of the pressed on covers, or lids, of glass jars, cans or other types of containers. More particularly, the invention pertains to a hand tool whereby a metal cover or lid, having a peripheral flange fitted over the top of the container, may be lifted and removed from the container.

It is the principal object of the present invention to provide a cover removing tool that may be quickly and easily applied for use and by which the cover to which it is applied may be lifted from the container without causing damage either to the container or to the cover.

It is also an object of the invention to provide a hand tool comprising a flat head portion of substantial area that may be applied flatly against the top of the cover, and from which head a handle extends; the head being equipped at opposite sides of the handle with downwardly directed hooks designed to holdingly engage with the bottom edge of the cover flange for the lifting of the cover by an upward pull on the handle.

It is also an object of the invention to provide a cover lifting tool of the above stated kind wherein the head and handle portions are equipped for the removal of bottle caps, tops, etc.

Still further objects of the invention reside in the details of construction and combination of parts as used in a device of a preferred form and in devices of alternative forms.

In accomplishing the above mentioned and other objects of the invention, I have provided the improved details of construction, the preferred forms of which are illustrated in the accompanying drawings, wherein—

Fig. 1 is a perspective view showing the present device, in its preferred form of construction, as applied for the lifting of a cover from a glass jar.

Fig. 2 is a top side, plan view of the head portion of the tool.

Fig. 3 is a side view of the device, illustrating its use for lifting a cover from a jar or glass.

Fig. 4 is a perspective view of the present cover lifter in one of its alternative forms of construction, and as applied for use.

Fig. 5 is a top view of the same.

Fig. 6 is a perspective view illustrating the device in still another alternative form of construction.

In some of the views of the present drawing, I have shown one type of cover for which the present tool is designed to be used and have shown the cover as applied to a container of the

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ordinary drinking glass or jelly glass form. However, it is to be explained that the container might be a jar, glass, can or other type of receptacle and the cover might be like that shown or a cover of a modified form within certain limits without requiring any change in the tool. Therefore, insofar as the showing of the jar and its cover is concerned, this is primarily for explanatory purposes and is not intended in any way to be a limitation to the use of the tool.

Referring more in detail to the drawings—

10 designates what may be a glass, jar or container, having a circular top portion over which a cover 11 is applied. The cover, which may be of sheet metal or other suitable material, is circular and is formed with a down-turned, peripheral flange 11' that fits closely about the rim portion of the container. It is the usual case that such covers are sealed on by some means that holds them securely in place and seals the joint until the contents of the container is to be used.

The tool which I have provided, and which is shown in its present preferred form in Fig. 1, is designated in its entirety by reference numeral 12. It comprises a rigid, flat piece of sheet-metal of sufficient stiffness and strength for its intended purpose, formed with a head portion 13 and a handle portion 14 that extends from the head. The head portion is substantially or triangular form and the handle portion, which lies in the same plane, extends centrally from the base edge of the head.

At opposite sides of the point of juncture of head and handle, the head has fingers 15 turned downwardly from its edge, and each of these has an inwardly turned hook end 15' that is designed, when the device is applied for use, to be engaged with the bottom edge of the cover for its removal.

The head portion of the tool is of substantial dimensions in order that it will extend well across a cover of normal size when applied thereto. Also, the head is generally of the shape of an isosceles triangle and is symmetrically arranged with respect to the central line of the handle. The fingers 15 are substantially spaced, and when applied to a cover of normal size, they span an arc of about 75°.

To use the device for the removal of a cover from a glass, jar, or other container, it is applied for use by first placing point portion of the head flatly upon the cover, then advancing it by means of the handle and in the longitudinal direction of the handle, until the ends 15' of the two downwardly extended fingers 15 both engage against

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the jar wall beneath the flange of the cover. Then, by an upward lift on the handle, the hook ends of the fingers will be engaged with the flange and the cover may be lifted free of the jar, for example as has been shown in Fig. 3.

In this use of the tool, the rounded end portion of the head bears flatly against the cover near one edge and the hooks engage with the cover flange at a substantial angular spacing, and due to the relative position of hooks and fulcrum, it is possible to lift the cover without its being dented, warped or otherwise damaged and it may be used again if such should be desired, merely by pressing it onto the jar.

In addition to the above stated use, I have shown the device as being equipped also for use as an ordinary bottle cap remover. This feature is provided by cutting a recess, as at 20, in the side edge of the outer end portion of the handle, and by so shaping the recess as to define a hook 21 at one edge thereof that is directed toward the end of the handle. The rounded end portion of the handle beyond the recess, serves as a lifting fulcrum when the hook is applied beneath the bottle cap for its removal.

Also, to adapt the tool for use in turning screw caps for their removal when stuck, I have provided the head portion of the tool with a V-shaped recess 25 opening directly to its pointed end, and this has its edge surfaces toothed as at 26 after the fashion of an alligator wrench, and its use is similar to the use of such a wrench.

In Figs. 4 and 5, the tool has been shown in an alternative form of construction. In this form, the tool is made from a single piece of stiff wire, bent back upon itself medially of its ends, to form a handle portion 28 with a rounded outer end. At the inner end of the handle portion, the ends of the wire are bent backwardly and outwardly inclined from the handle, forming legs 29—29 extending in the same plane as the handle, and these are turned downwardly at their ends and curved to form hooks 30—30 which correspond to the hooks 15' of the device of Fig. 1. The device, in this form, is used exactly as is the tool of Fig. 1 for lid or cover removing purposes.

The device of Fig. 6 comprises a flat metal bar 35 serving as a handle, with an offset head portion 36 adapted to be placed flatly upon the cover

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that is to be removed. Struck downwardly from the head portion, near the juncture of head and handle, is a hook 37, and this is designed to be engaged beneath the flange of a cover for its removal. Such a device as here shown might be incorporated at the outer end of a handle as used on various kitchen tools or appliances; for example, as on the device of my co-pending application, Serial No. 664,329, filed April 23, 1946, now abandoned.

Devices of this kind are easy to apply, easy to use and are effective and satisfactory in their use. Furthermore, the cover or lid may be removed without damage thereto or to the container from which it is removed.

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

A tool for the lifting of flat, peripherally flanged covers from containers; said tool comprising a flat head portion adapted to be placed flatly against the top surface of the cover which is to be lifted, a handle rigidly associated with the said head portion and extending in the plane thereof from its base edge; said head portion having hooks extending downwardly and then inwardly from the base edge thereof at distances substantially and equally spaced from and at opposite sides of the handle, and adapted to be engaged with the bottom edge of the flange of the cover, and said head portion having fulcrum points at the inner edge thereof relatively close to and at opposite sides of the line of the handle to bear against the top during a cover lifting operation.

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