PIVOTED JAW CLOSURE REMOVER WITH ECCENTRIC PIVOT

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Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

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This invention relates to a household device and is primarily an object of the invention to provide a device of this kind which can be employed with facility in removing various types of closures for containers, such as screw caps or lids on fruit jars, food and medical containers; rubber sealed caps as used on glass containers for cheese, jellies, etc.; and in connection with that type of container requiring the use of a key for opening purposes.

It is also an object of the invention to provide a device of this kind which can be used to advantage in connection with containers of varying sizes and for the removal of cramped caps or lids.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved household device whereby certain important advantages are attained, as will be hereinafter more fully set forth.

In order that my invention may be better understood, I will now proceed to describe the same with reference to the accompanying drawing, wherein:

Figure 1 is a view in front elevation of a household device constructed in accordance with an embodiment of the invention with the associated key in its stored position;

Figure 2 is a view in side elevation of the device with a screw cover or lid type container engaged thereby for either tightening or loosening the cover or lid, portions being in section;

Figure 3 is a fragmentary view in side elevation showing certain of the parts in an adjustment for the removal or tightening of a screw cap or lid on a bottle or other small container, and a container in position or removal of a rubber sealed cap;

Figure 4 is a fragmentary view partly in side elevation and partly in section showing the use of a key for removing a conventional creased tin strip;

Figure 5 is a fragmentary view in side elevation showing bottle with cramped cap engaged with the device for removal of the cap; and

Figure 6 is a view in perspective of the bottom block or jaw member removed from the body.

In the embodiment of the invention as illustrated in the accompanying drawing, P denotes a body or plate of desired dimensions and configuration and herein shown as rectangular. This body or plate P is held to a wall or other support with the longitudinal axis of the body or plate substantially vertically disposed. The means of securing the body or plate P in desired position may be as preferred but in the accompanying drawing there is disclosed the use of conventional screws 1, disposed through opposite end portions of the body or plate P.

The lower portion of the body or plate P is provided, at points spaced lengthwise thereof, with the openings 2, arranged on an inward and downward incline as shown in Figure 2, with all of the openings being at the same angle.

These openings 2 are also arranged in series of two, with the openings of each series spaced apart transversely of the body or plate P.

A series of openings 2 is adapted to selectively receive the pins 3, carried by a jaw block 4, and extending beyond the inner face thereof on the same angle as the openings 2. The openings 2 and pins 3 allow for a desired adjustment of the blocks 4 along the body or plate P, as may be desired.

The central part of the block 4 is provided with a V recess 5 whereby the device may be employed with equal advantage in connection with caps or lids of differing diameters.

Pivoted as at 6, at the upper portion of the body or plate P, on the longitudinal center thereof and above the openings 2, is a sector jaw 7, having movement in both directions across the front face of the body or plate P with the arcuate edge face opposed to the applied block 4. This arcuate edge face of the sector jaw 7, has disposed thereover and cemented thereto a rubber facing strip 8. This strip 8 is of a length to overlap the end edge faces of the jaw 7, and held to the end edge faces by a suitable cement and by the headed members or tacks 9.

To tighten or loosen a screw cap or lid, such cap or lid after initial application to the container, is rested upon the jaw block 4, within the recess 5, and the jaw member swung into contact with the cap or lid from the side thereof determined by whether the cap or lid is to be tightened or loosened. Requisite turning strain imposed on the container will effect the desired tightening or loosening of the cap or lid.

Securely held, as at 10, to the top edge face of the body or plate P, is a bracket plate 11, having its central portion forwardly extending, as at 12, and formed to provide a downwardly and inwardly curved lip 14, to engage behind the edge of a cramped cap (Fig. 5) or of a rubber sealed cover or lid (Fig. 3) of a container resting from above upon the outer edge of the straight top face 15 of the jaw member 7, with the container upwardly and outwardly inclined so that upon downward pressure upon the outer extremity of the container, the lid or cap will be readily removed.

The extended portion 12 of the plate 11, in-
wardly of the lip 14 is provided with an opening 16, so positioned as to be directly above a socket 17, in the top edge face 15 of the jaw member 7, when the jaw member is in its normal or central position. The split shank 18 of a key 19, is insertible from above through the opening 16 for seating in the socket 17. The kerf or slot 19 of the shank 18 is open at the outer end of the shank.

When the key 19 is in place with respect to plate 11 and the jaw member 7, the free extremity of a creased tin strip 20 is inserted through the intermediate portion of the kerf or slot 19 of the key with the container immediately adjacent to the swinging jaw member 7 (Fig. 4) so that as the key 19 is rotated, the desired removal of the strip 20 will be accomplished. To facilitate the removal of this strip 20, the outer face of the jaw member 7 directly in front of the socket 17, has disposed transversely thereof the supporting bar 21 which is directly contacted by the peripheral wall of the container.

After the strip 20 has been wound upon the key 19, the open slot or kerf 19 permits the unhampered withdrawal of the key 19 through the strip winding on the shank 18.

When the key 19 is not in use, it is inserted in the socket 22 provided in the top edge face of the member or plate 2, and with which registers the entrance opening 23, suitably positioned on the bracket plate 11.

The body or plate 5, block 4, and member 7, may be made of plastic, wood, or such other material as may be desired, which will assure an economical and efficient device.

From the foregoing description it is thought to be obvious that a household device constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated.

I claim:

1. A device of the character described, comprising a body, a jaw member pivotally mounted on the body and adapted to swing across a face thereof, a jaw block, coacting means carried by the body and block for holding the block in different selected positions with respect to the jaw member comprising openings spaced along the body, and pins carried by the jaw block insertible into said openings, said openings and pins being disposed to define an acute angle with the portion of the said face of the body lying between the jaw member and the block.

2. A device of the character described comprising a long flat body designed to be disposed in a vertical position for use, a pivot member secured to the body and projecting from a face thereof, a jaw member comprising a segment of a disk disposed against said face and having said pivot pin eccentrically connected therewith whereby the arcuate edge of the segment is directed downwardly, a friction element covering the said arcuate edge of the segment, said body below the arcuate edge of the segment having two spaced longitudinally directed rows of apertures extending downwardly therein at an acute angle to said face, a jaw block of substantially the same width as said body and adapted to position against the said face of said body, the jaw block having a V notch formed in an edge adjacent to the arcuate edge of the segment, and a pair of pins carried by the jaw block and disposed at an angle to said face of the block which is adjacent to the body, the pins being spaced apart for engagement in a pair of apertures of the body.

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