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CAN OPENER

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2 Claims. (Cl. 220—52)

My invention relates to can openers and, more particularly, to improvements in key operated openers for metallic cans of the type having closure strips extending about their cylindrical sides adjacent one end thereof.

The primary object of my invention is the provision of a device of the class above described which is provided with a plate-like head having one or more circular tracks in its under surface for the reception of the upstanding marginal flanges of cans of varying diameter, and which is provided with a winding key which is mounted in the head for rotary movements and radial sliding movements relative thereto whereby a winding strip may be completely removed from cans of varying diameter with a minimum amount of effort and without direct engagement of the hand of the operator with the closure strip.

A further object of my invention is the provision of a device of the class described which is relatively inexpensive to produce and which is rugged and durable.

A still further object of my invention is the provision of a device of the class described wherein the marginal flange of the can is rotatively received within a track on the under side of the head and in which the winding key is mounted for rotation and radial sliding movements from a point closely adjacent said track, whereby the winding key may automatically slide radially outwardly with respect to the side of the can as successive convolutions of the closure strip are wound thereabout.

The above and still further objects of my invention will become apparent from the following detailed specification, appended claims, and attached drawings.

Referring to the drawings, wherein like parts are indicated by like characters throughout the several views:

Fig. 1 is a view in top plan of my novel structure; and

Fig. 2 is a transverse section taken substantially on the line 2—2 of Fig. 1.

Referring with greater particularity to the drawings, the numeral 1 indicates in its entirety a generally circular plate-like head having on its under surface 2 a plurality of eccentrically arranged track forming grooves 3 for the reception of the upstanding marginal flanges 4 of conventional metallic cans 5, of different diameters. The free end of the closure strip extending about the cylindrical side wall 6 of the can 5, is identified by the numeral 7. By reference particularly to Fig. 1, it will be noted that the several tracks 3 have a tangential relationship at a point immediately adjacent the radially inner end 8 of a slot 9 in a laterally projecting ear 10, preferably and as shown formed integrally with the head 1. As shown, the slot 9 extends radially outwardly through the outer end 11 of the ear 10.

A winding key 12, as shown, is preferably bifurcated at its lower end portion, as indicated by the numeral 12', for the reception of the free end 7 of a closure strip. At its intermediate portion the key 12 is provided with a radially projecting circumferentially extended flange 13 which rests upon the upper surface 14 on opposite sides of the slot 9 and prevents axial movements of the key with respect to the head 1, but permitting radial sliding

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movements of said key 12 in said slot 9. An elongated anchoring strip 15 has its radially inner end rigidly secured, by means of a rivet or the like 16, to the head 1 radially inwardly of the inner end 8 of the slot 9 and the adjacent point of tangency of the tracks 3. It will be noted that the intermediate portion of the anchoring strip 15 overlies the flange 13 of the key 12 and limits upward axial movements thereof with respect to the head 1. The upper end 17 of the key 12 extends upwardly through an axially extended slot 18 in the anchoring strip 15, said slot 18 being aligned with the slot 9 in the ear 10. At its extreme upper end the key 12 is provided with a wing portion 19 to facilitate winding movements. At its radially outer end, the anchoring strip 15 is bent around the outer edge 11 of the ear 10 and caused to engage the bottom surface 20 thereof thus securely locking the anchoring strip 15 in the operative position shown.

When it is desired to open a can of the type in question with my novel structure, above described, the head 1 is placed thereover so as to cause the upstanding marginal flange 4 thereof to be received within a track 3 of the proper diameter. The free end 7 of the closure strip is then caused to be received between the bifurcations 12' on the lower end of the key 12. Thereafter winding movements imparted to the key 12 by engagement of the winged upper end 19 thereof by the thumb and finger of the operator will cause the flange 4 of the can 5 to rotate within the track 3. As successive convolutions of the winding strip are wound about the key 12, below the bottom 20 of the ear 10 the key 12 will slide axially outwardly in the aligned slots 9, 18, until the closure strip is completely removed from the can 5. Due to the fact that the key 12 is anchored against axial movements, by the ear 10 and the anchoring strip 15, each convolution of the closure strip is radially aligned with the underlying convolution thereof—an arrangement which prevents the successive convolutions from becoming axially offset from underlying ones thereof and interfering with the proper operation of my invention.

My invention has been thoroughly tested and found to be completely satisfactory for the accomplishment of the above objects, and while I have disclosed a preferred embodiment thereof, it should be obvious that same is capable of modification without departure from the scope of the appended claims.

What I claim is:

1. In a device of the class described, a generally circular plate-like head the under surface of which defines a plurality of eccentrically arranged tracks, an integrally formed ear projecting laterally from said head, said ear defining a radially extended slot, said tracks having tangential relationship at a point closely adjacent the inner end of said slot, a winding key mounted for rotation and sliding movements in said slot, said key having a perforated lower end adapted to receive the free end of a closure strip extending about the cylindrical side of a can the upstanding marginal flange of which is received within one of the tracks in said head, and means anchoring said key against axial movements with respect to said head, said means including an anchoring strip secured at its inner end to said head radially inwardly of the point of tangency of said tracks and having its outer end hooked over the outer end of said ear, said anchoring strip having a radially extended slot in alignment with the slot in said ear, and said key being provided with a radially projecting circumferentially extended flange which is fast thereon and is received between the upper surface of said ear and said anchoring strip.

2. In a device of the class described, a plate-like head the undersurface of which defines a plurality of eccentrically arranged arcuate tracks which have a tangential

relationship, said head further defining a slot which extends radially with respect to said tracks, the inner end of said slot terminating in closely spaced relationship to the point of tangency of said tracks, a winding key mounted for rotation and sliding movements in said slot, said key 5 having a perforated lower end adapted to receive the free end of a closure strip extending about the cylindrical side of a can, the upstanding marginal flange of which is received within one of said tracks, and means limiting

axial and longitudinal sliding movements of said key in said slot.

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