W. C. AND E. O. HAGLEY.

LID OPERATING DEVICE.


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To all whom it may concern:

Be it known that we, WILBERT C. HAGLEY and EDWARD O. HAGLEY, both citizens of the United States, residing at Huntington, in the county of Cabell and State of West Virginia, have invented certain new and useful Improvements in Lid-Operating Devices, of which the following is a specification.

The present invention relates to lid lifting and closing devices, more particularly adapted for application to grocers' cabinets and like receptacles having a hinged lid adapted to be opened and closed.

The object of the present invention is to provide a relatively strong and durable operating mechanism which may be operated to open and close the lid by the foot, which may be retained in open position during access to the cabinet; which is constructed to distribute the pressure evenly upon opposite sides of the hinged cover; and which is adapted to prevent injury to the cover incident to undue jarring of the same.

With these and other objects in view, the invention consists in certain novel combinations and arrangements of the parts as will more fully appear as the description proceeds, the novel features thereof being pointed out in the appended claims.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a side elevation of a cabinet having a hinged cover in closed position, and showing the operating device of this invention applied thereto.

Fig. 2 is a similar view, showing the parts in position with the cover raised.

Fig. 3 is a transverse section through the upper portion of the receptacle with the device of the invention applied thereto, taken on the line 3–3 of Fig. 1.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawing, 10 designates a receptacle of any approved type which, as shown, may be rectangular in cross section and provided with a closure on its upper end in the form of a lid 11 connected to the rear side of the container 10 by a hinge 12.

The operating device for the hinged lid 11 comprises a treadle 13 in the form of a strip of metal bent U-shaped with its side portions arranged exteriorly against the opposite sides of the receptacle 10 and pivoted at their free ends upon brackets 14 secured to the opposite sides of the container 10 adjacent the rear side thereof. The treadle 13 is provided with an outwardly bent foot-piece 15 at its intermediate portion, the foot-piece being adapted to extend outwardly from the receptacle 10 to receive the foot for depressing the treadle.

A lever 16 is pivoted at 17 against opposite sides of the receptacle 10 near the upper edge thereof, the lever 16 being pivoted between its ends, and one end of each lever 16 being connected by a link 18 to the adjacent side portion of the treadle 13 near the free end of the latter. The other end of each lever 16 is pivotally connected by a link 19 with the cover 11, the link 19 having pivotal connection with the cover 11 at a point in spaced relation to the hinge 12. The levers 16 are adapted to lie substantially in a horizontal position below the cover 11 when the latter is closed, and the link 18 is pivoted to the rear end of the lever 16 and the link 19 is pivoted to the forward end thereof.

A spring 20 has one end connected to each lever 16 between its pivot 17 and the link 19, the other end of each spring 20 being secured to the treadle 13 between its pivot 14 and the link 18. The action of the spring 20 is such that it normally urges the cover 11 into closed position, and cushions the hinged cover 11 as it is swung into open position.

When the treadle 13 is depressed to open the lid 11, as shown in Fig. 2, the outer portion of the treadle engages beneath the shoulder 21 of a spring catch 22 riveted or otherwise suitably secured to the lower portion of the front wall of the receptacle. The spring catch 22 is provided with an outstanding lip 23 which constitutes a cam at 100 its inner end and is curved accurately into the shoulder 21 for springing the catch 22 outwardly as the treadle 13 moves over the face of the cam and beneath the shoulder 21.

In operation, when the receptacle 10 is closed, as shown in Fig. 1, and it is desired to gain access to the interior of the receptacle, it is only necessary to place the foot on the projection 15 and depress the treadle 13. As the treadle is swung down, it draws the links 18 at opposite sides of the receptacle and swings the lever 16 to move their
rear ends downwardly and to lift their forward ends. The upward thrust of the forward ends of the levers 16 raises the links 19 and swings the cover 11 into an open position. The spring 20 prevents the jarring of the cover 11 when it reaches its uppermost position, and thus prevents injury to the hinge 12 and the parts of the operating mechanism. When the treadle 13 approaches its lowermost position the forward portion or bar of the treadle engages the spring catch 22 and forces the same outward sufficiently to permit the shoulder 21 to snap over the upper edge of the treadle and thus hold it in lowered position. The lid 11 is thus held in open position, and when it is desired to close the lid it is only necessary to place the foot upon the lip or projection 23 of the spring catch to depress the same and free the treadle 13. The spring 20 now raises the treadle 13 and causes the lid 11 to close.

Having thus described the invention, what we claim as new and desire to secure by Letters Patent, is:

1. In a lid operating device, the combination with a receptacle having a hinged lid, a U-shaped treadle pivoted at its free ends against the opposite sides of the receptacle and extending across the front thereof, a lever pivoted on each side of the receptacle near the top thereof, a pair of links between the treadle and one end of each of said levers, a second pair of links between the other ends of said levers and the lid, a spring at each side of the receptacle for urging the treadle upwardly to close the lid, and foot releasable means on the lower end of the receptacle adapted to engage the treadle for holding the lid open against the tension of the spring.

2. In a lid operating device, the combination with a receptacle having a hinged lid, a treadle pivoted upon the receptacle, operating means between the treadle and the lid for opening the latter when the treadle is depressed, and a spring catch carried upon the lower end of the receptacle adapted to automatically interlock with the treadle when depressed and provided with an outwardly standing portion adapted to be engaged by the foot for releasing the treadle to close the lid.

3. In a lid operating device, the combination with a receptacle having a hinged lid, a treadle pivoted on the receptacle, means between the treadle and the lid for opening the latter when the treadle is depressed, means for normally urging said treadle upwardly to close the lid, and a spring catch mounted on the receptacle adapted to automatically interlock with the treadle when depressed to hold the lid open, and provided with means engageable by the foot to release the treadle whereby said spring is adapted to raise said treadle and close the lid.

In testimony whereof we affix our signatures.

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