

J. F. HAMILTON.
MILK CAN COVER.
APPLICATION FILED OCT. 25, 1919.

1,374,732.

Patented Apr. 12, 1921.

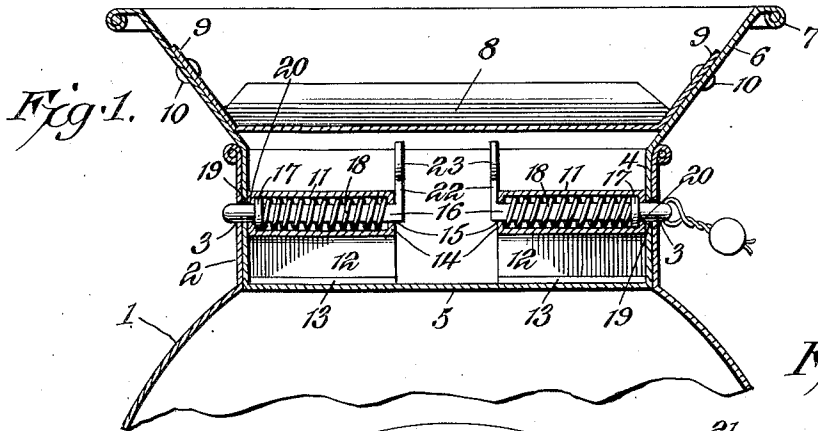


Fig. 2.

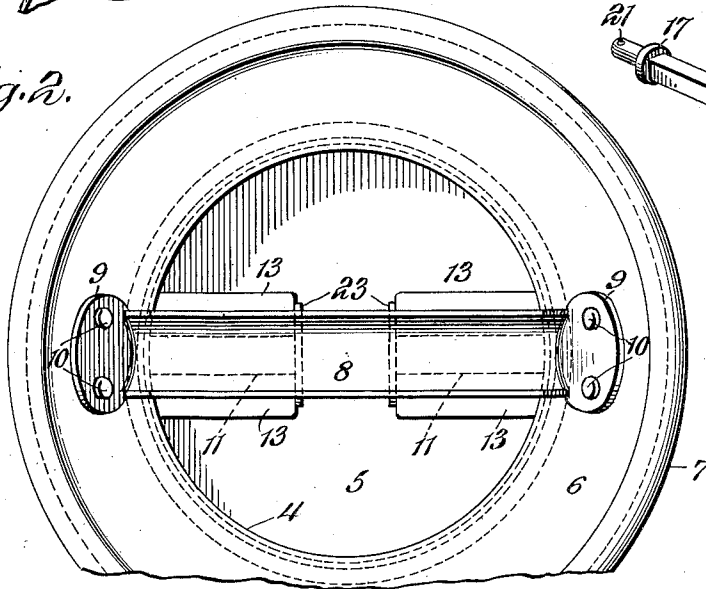


Fig. 4.

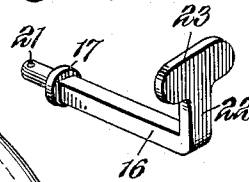
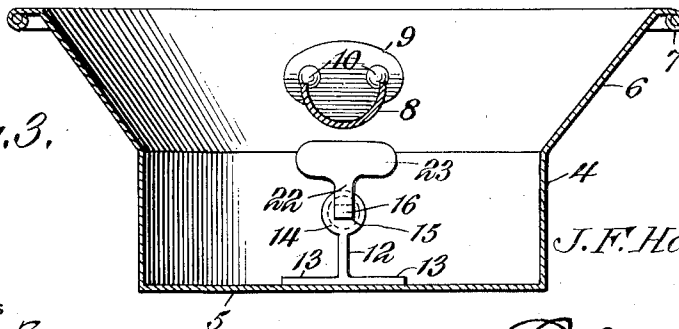


Fig. 3.



WITNESSES

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MILK-CAN COVER.

1,374,732.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN FLOYD HAMILTON, a citizen of the United States, residing at Minidoka, in the county of Minidoka and State of Idaho, have invented a new and useful Milk-Can Cover, of which the following is a specification.

This invention relates to covers for milk cans or similar receptacles, and more particularly to locking means for holding the same in position.

The object is to provide a cover of this character which may be placed within the neck of the milk can or other receptacle at any point, and by a partial rotation of the cover, to bring certain coacting parts in proper relation to each other, so that the said cover may be automatically locked within the neck of the can.

Another object is to so position the locking members carried by the cover as to be readily engaged between and by the fingers of the operator while in the act of grasping the handle of the cover, and to be readily withdrawn from their engagement with the neck of the can as the cover is removed therefrom.

A full and complete understanding of the invention may be obtained from a consideration of the following detailed description, taken in connection with the accompanying drawing forming a part of this specification; it being understood that while the drawing shows a practical form of the invention, the latter is not confined to strict conformity therewith, but may be changed or modified, so long as such changes or modifications mark no material departure from the salient features of the invention, as specifically pointed out in the appended claims.

In the drawing, in which similar reference characters designate corresponding parts throughout the several figures:—

Figure 1 is a vertical section through the neck of a milk can or other receptacle having a cover embodying the improvements applied thereto.

Fig. 2 is a plan view of the same.

Fig. 3 is a vertical section through the cover, taken at right angles to Fig. 1.

Fig. 4 is a detail view of one of the locking bolts.

Referring to the drawing, the reference numeral 1 designates the upper rounded shoulder portion of a milk can or other

similar receptacle having the upstanding neck 2 surrounding the mouth of the can.

The neck 2 is reinforced around its upper edge by the usual bead, and is provided substantially midway of its height with a pair of diametrically opposed openings 3, for a purpose to be described.

The cover comprises a cylindrical collar 4 composed of suitable sheet metal, such as block tin, and of a diameter to snugly fit within the neck 2 of the can or receptacle, the said collar being of a height substantially equal to the height of the neck, and having integrally formed therewith, at its lower edge, a bottom 5 which is adapted to act as the closure proper for the can or receptacle.

The upper end of the collar 4 is integrally joined to the lower reduced end of an upwardly and outwardly flared, funnel-shaped flange 6 having its upper free edge formed in a suitable strengthening bead 7 entirely surrounding the same and of a diameter considerably greater than the diameter of the neck. The upper portion of the cover is thus formed to freely admit of the entrance of the hand of an operator thereinto, for the purpose of grasping a handle 8 formed of suitable sheet metal bent into U-shape in cross section and having its ends formed into ears 9, arranged at an angle thereto to correspond with the inclined wall of the flange 6, and rigidly secured to the same as by rivets 10 at diametrically opposite points of the cover. The handle 8 is thus located transversely of the said cover, through the center thereof, and at an elevation slightly above the point of juncture between the cylindrical collar 4 and the funnel-shaped flange 6, and the same may be readily grasped by the hand of the operator.

It will also be seen that the funnel-shaped flange 6 also acts as a stop to arrest the downward movement of the cover within the neck of the can or receptacle, by coming into contact with the upper beaded end of the neck 2 of the same, and that, when such is the case, a tight closure is provided for the can.

Within the neck 2 of the cover is carried a pair of longitudinally disposed tubular housings 11 arranged diametrically opposite to each other and suitably secured, as by soldering, to the inner face of the said neck and supported upon legs 12 having foot portions 13 suitably secured to the upper

face of the bottom 5. The inner opposed ends of the housings are closed by walls 14, each spaced a suitable distance from the center of the bottom 5, and provided with 5 rectangular openings 15 for the passage of a locking bolt 16 formed to fit the same.

The locking bolts 16 are each provided near their outer active ends with a circular flange 17, fitting within the tubular housings at the outer ends thereof, and adapted to 10 bear against the outer ends of coiled springs 18 located within the said housings and bearing at their inner ends against the end walls 14. Thus the springs 18 tend to nor- 15 mally hold the locking bolts 16 in outwardly projected positions, the active ends of the latter, beyond the said flanges 17, being preferably round in cross section, where traversing suitable apertures 19 formed in 20 the outer end walls 20 of the tubular housings and in the walls of the cylindrical collar 4 and the terminals of the bolts being rounded to facilitate their entrance into the openings 3 formed in the neck 2 in order 25 to lock the cover in position. The bolts extend through the openings 3 and project beyond the neck of the can and have holes 21 formed therein to receive a seal as shown in Fig. 1. It is only necessary to seal one 30 of the bolts, though both bolts are provided with holes for this purpose. By the provision of the seal, the purity of the milk is assured and adulteration guarded against.

It will readily be seen that, upon insert- 35 ing the cover fully within the neck of the can, the rounded outer ends of the locking bolts will be held in engagement with the inner face of the neck 2, and upon rotating the cover in either direction the bolts may 40 be brought into registering relation with the openings 3, when the said bolts will be automatically projected into locking engagement therewith, through the medium of the springs.

The inner ends of the bolts are provided 45 with upstanding arms 22 or handles having at their upper ends widened, finger-engaging portions 23 located immediately beneath the handle 8, at right-angles thereto, and 50 spaced apart a distance to be easily engaged between the middle fingers of the hand of an operator at the moment of grasping the handle of the cover.

It will thus be seen that with one opera- 55 tion the handle of the cover may be grasped,

and the locking bolts actuated by pressing the said fingers together, to free the cover from the neck of the can, when the same may be readily lifted and access to the interior of the can be had. 60

The rectangular formation of the locking bolts, where passing through the corresponding openings in the inner walls of the tubular housings, prevents their turning in said housings, thus maintaining the finger en- 65 gaging portions in upstanding position to be engaged by the hand of the operator.

From the foregoing it will be seen that an extremely simple, durable and efficient locking means for can covers has been pro- 70 vided, which requires the use of only one hand to apply and lock the same to the can, or quickly release and remove it therefrom by one operation.

What is claimed is:— 75

In a cover fastener for milk cans and the like, the combination with a cover having a cylindrical collar adapted to fit within the neck of a can, said neck having diametri- 80 cally opposite openings therein, a flange joined to the upper end of the collar, and a handle secured transversely within the flange, of longitudinally alined, spaced apart housings arranged directly beneath the handle and substantially parallel there- 85 with, locking bolts mounted slidably and non-rotatably within the housings, said bolts having their outer ends extending through the walls of the cylindrical collar and adapted to enter the openings provided in 90 the neck of the can, coil springs surrounding the bolts within the housings and normally forcing the same outwardly into locking position, upwardly extending arms car- 95 ried by the inner ends of each of the bolts in spaced relation to each other, and finger engaging portions at the upper ends of the arms and immediately beneath the handle to be grasped between the middle fingers of the operator to retract the bolts at the same time 100 the handle is grasped to remove the cover, the arms being maintained vertical in all positions of the bolts by the non-rotative mounting of the bolts.

In testimony that I claim the foregoing 105 as my own, I have hereto affixed my signature.

JOHN FLOYD HAMILTON.

Witness:

F. J. TOEVS.