

No. 714,376.

Patented Nov. 25, 1902.

J. C. HOWELL.
CLOSURE FOR MILK CANS.

(Application filed Apr. 7, 1902.)

(No Model.)

Fig. 1

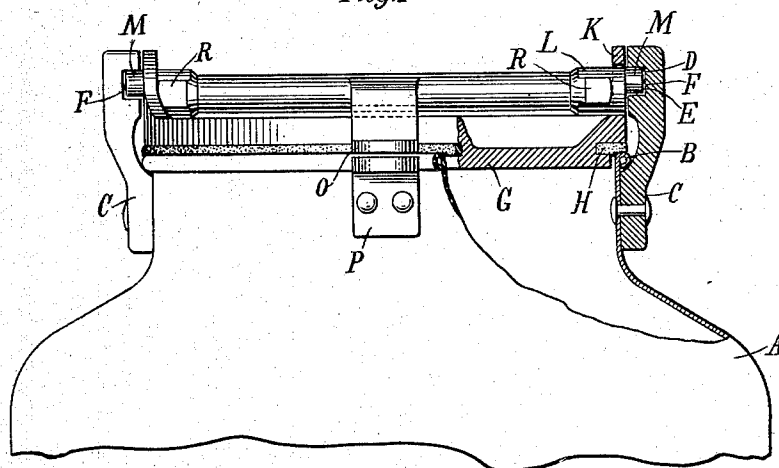
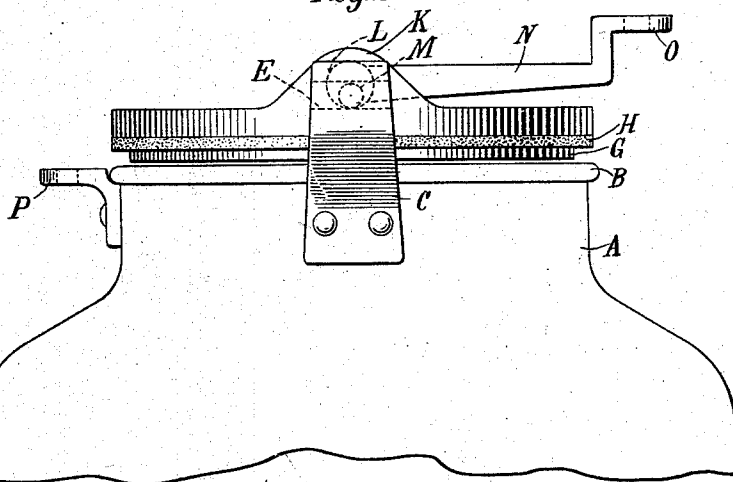


Fig. 2



Witnesses:

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UNITED STATES PATENT OFFICE.

JAMES C. HOWELL, OF GOSHEN, NEW YORK, ASSIGNOR TO DAIRYMEN'S MANUFACTURING COMPANY, A CORPORATION OF NEW YORK.

CLOSURE FOR MILK-CANS.

SPECIFICATION forming part of Letters Patent No. 714,376, dated November 25, 1902.

Application filed April 7, 1902. Serial No. 101,635. (No model.)

To all whom it may concern:

Be it known that I, JAMES C. HOWELL, a citizen of the United States, and a resident of Goshen, in the county of Orange and State of New York, have invented certain new and useful Improvements in Closures for Milk-Cans, of which the following is a specification, taken in connection with the accompanying drawings, which form a part of the same.

This invention relates to milk-can closures by which the cans in which milk or other material is shipped may be securely fastened and the closure readily removed from the can when desired.

In the accompanying drawings, in which the same reference character refers to similar parts in the various figures, Figure 1 is an elevation, partly in section, showing this closure applied to the top of a milk-can. Fig. 2 is an elevation taken substantially at right angles to Fig. 1, showing the closure in released position.

A represents the neck of a milk-can of any desired construction, there being a supporting-ring B at the top of the neck formed in the usual way, so as to form a suitable seat for the cover, although the construction of the neck at the top may be different from what is illustrated, if desired, so that the seat may have any desired shape. The ears C are securely fastened to the seat by rivets or by any other desired means, and these ears are preferably provided with straight slots F, the clamping-lugs D being formed on the ears above the slots and the releasing-lugs E being below the same.

The cover G is of any desired material and may be formed in any manner, although it is preferably constructed of malleable iron suitably protected or tinned. When this cover is clamped upon its seat, so as to close the milk-can, as is indicated in Fig. 1, the gasket H, of rubber or any other suitable material, which is secured in a suitable groove in the cover, engages the seat, so as to form a tight joint between the parts. The cover is provided with two flanges K on either side of the same, and the shaft L is mounted in suitable bearings in these flanges, so as to rotate therein, this shaft being held in proper engagement with the flanges by the retainers

R, which are secured to the shaft preferably after its insertion in the flanges. The lever N, which is preferably integral with this shaft, serves to rotate the same, and the outer end of this lever is provided with the locking-piece O, which coacts with the projection P, secured to the neck of the can. When the closure is in the position indicated in Fig. 1, the holes in the parts O and P come into engagement, so that the lever may be locked to the projection P by any desired means, so as to prevent the closure being opened. Upon the outer end of the lever are formed the cams or eccentrics which engage the slotted ears and clamp the cover upon its seat and also positively withdraw the cover from its seat when the lever is swung into the released position. (Shown in Fig. 2.) These cams M are preferably in the form of eccentric projections, as indicated in Fig. 2, and they enter the slots F in the ears, so as to coact with the clamping and releasing lugs. These projections on the ends of the shaft may, however, have any other form, so long as they coöperate with means secured to the seat to clamp the cover upon the seat and to positively release it therefrom.

In operating this closure the cover is placed upon the can so that the cams M enter the slots in the ears, as indicated in Fig. 2, the lever being in the release position at this time. Then the lever is rotated into the position indicated in Fig. 1, the cams engaging the clamping-lugs on the ears, and thereby forcing the cover down upon its seat to make a secure closure for the milk-can. By swinging the lever into the position indicated in Fig. 2 the cams engage the releasing-lugs in the ears and positively withdraw the cover from its seat, which is very desirable, since these covers are liable to become wedged upon the seats and are therefore difficult to withdraw. This is especially advantageous in case the cover projects to any considerable distance into the neck of the can. The ends of the lever may be disengaged from the slotted ears by rotating the cover or otherwise, and the cover may thereupon be removed from the milk-can. Since the slots in the ears are made straight, the cams M may be inserted or withdrawn from either end of these

slots and cannot therefore become wedged therein.

It is of course apparent that many modifications may be made in this device without departing from the spirit of the same, and, furthermore, parts of this device may be used in connection with other devices without departing from the spirit of this invention. I do not, therefore, wish to be limited to the disclosure which I have made in this case; but,

What I claim as new, and what I wish to secure by Letters Patent, is set forth in the appended claims.

1. In a milk-can closure, a seat, ears secured to said seat, clamping-lugs and releasing-lugs on said ears forming straight slots, a projection secured to said seat, a cover to engage said seat, flanges secured to said cover, a shaft having the bearings in said flanges and provided with a lever to cooperate with said projection and cams at the outer ends of said shaft to engage said slots to clamp said cover upon said seat and to positively release said cover from said seat.

2. In a milk-can closure, a cover provided with a gasket mounted in a groove in said cover and adapted to engage a seat, a shaft having bearings in flanges in said cover, said shaft being held in said bearings by retainers secured to the same, eccentric cams and a lever on said shaft and slotted ears secured to said seat to be engaged by said cams to clamp said cover upon said seat and to positively withdraw said cover from said seat.

3. In a milk-can closure, a seat, ears secured to said seat, there being clamping-lugs and releasing-lugs on said ears, a cover to en-

gage said seat, a shaft in said cover, an operating-lever on said shaft and cams at the ends of said shaft to engage said clamping and releasing lugs to clamp said cover against said seat and to release said cover from said seat.

4. In a milk-can closure, a seat, ears secured to said seat, a cover to engage said seat, a shaft rotatably mounted in said cover and means at the outer ends of said shaft to engage cooperating means on said ears to clamp said cover upon said seat and to positively release said cover from said seat.

5. In a milk-can closure, a seat, a cover to engage said seat, a shaft mounted in said cover and means at the outer ends of said shaft to engage cooperating means secured to said seat to clamp said cover upon said seat and to positively withdraw said cover from said seat.

6. In a milk-can closure, a seat having ears secured thereto, said ears being formed with clamping and releasing lugs, a cover to engage said seat and cams rotatably mounted on said cover to engage said lugs to clamp said cover upon said seat and to positively release said cover from said seat.

7. In a milk-can closure, a seat, ears having inwardly-projecting clamping and releasing lugs secured to said seat, a cover to engage said seat and a shaft mounted in said cover and provided with outwardly-projecting cams to engage said lugs to clamp said cover upon said seat and to positively release said cover from said seat.

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