

(No Model.)

2 Sheets—Sheet 1.

J. T. HOILE.
LOCK.

No. 565,459.

Patented Aug. 11, 1896.

Fig. 1.

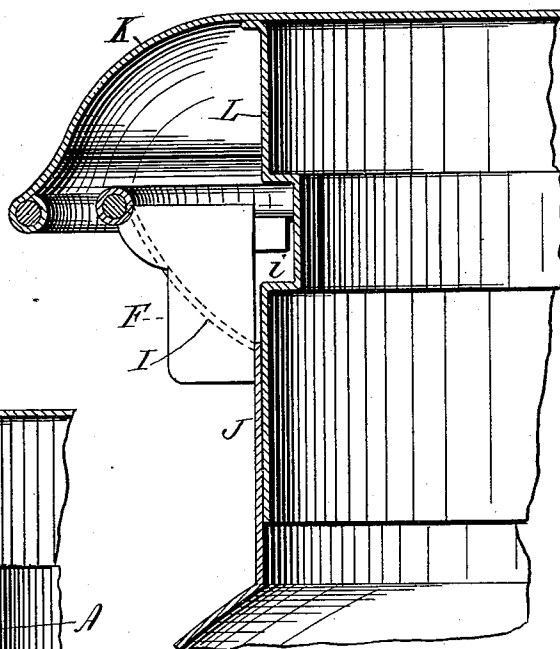


Fig. 2.

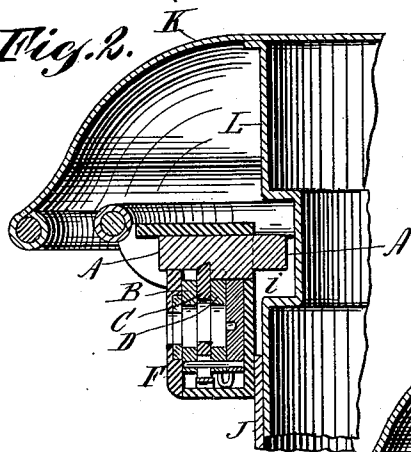
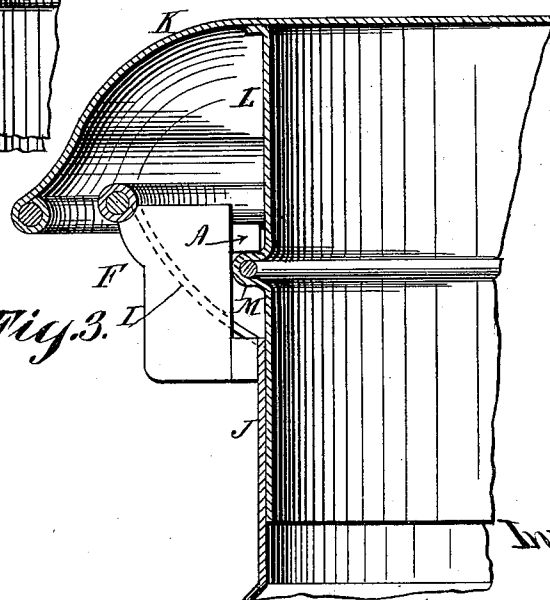


Fig. 3.



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Inventor:

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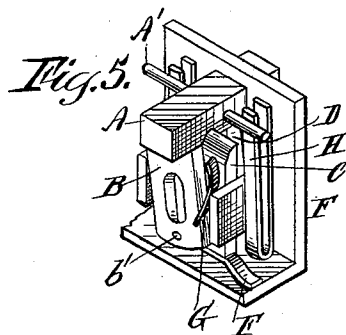
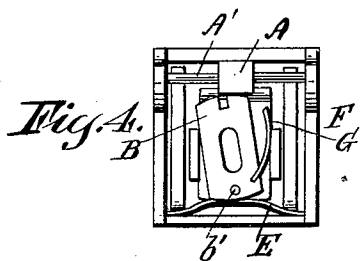


Fig. 6.

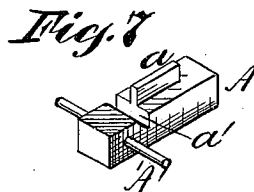
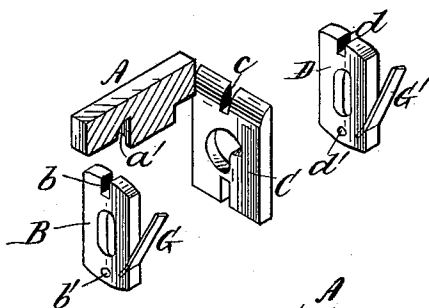


Fig. 8.

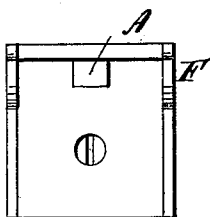
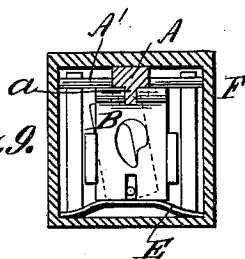


Fig. 9.



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UNITED STATES PATENT OFFICE.

JAMES T. HOILE, OF FARMINGDALE, NEW YORK.

LOCK.

SPECIFICATION forming part of Letters Patent No. 565,459, dated August 11, 1896.

Application filed October 25, 1893. Serial No. 489,091. (No model.)

To all whom it may concern:

Be it known that I, JAMES T. HOILE, a citizen of the United States, and a resident of Farmingdale, in the county of Queens and State of New York, have invented certain new and useful Improvements in Locks, of which the following is a specification.

My invention relates to certain new and useful improvements in locks, and has for its object the production of a lock which will be simple and economical in construction, positive and rapid in its action, and not liable to get out of order.

To these ends my said invention consists in the details of construction and combination and arrangements of parts, all as hereinafter more particularly described, and pointed out in the claim.

In the drawings, in the several figures of which like parts are similarly designated, Figure 1 shows a sectional view of a milk-can provided with my improved lock. Fig. 2 is a similar view with the lock in section. Fig. 3 is a similar view showing a modified form of milk-can. Fig. 4 is an end view of the interior of the lock with the bolt sprung. Fig. 5 is a perspective view of the interior of the lock. Fig. 6 is a detail view of the swinging plates and bolt. Fig. 7 is a view of the bolt. Fig. 8 is a top view, and Fig. 9 is an end view, of the interior of the lock with the bolt drawn.

Referring to Figs. 4 to 9, the operating parts of my lock consist of a bolt provided with a fin or feather and a number of notched plates mounted in the frame of the lock, so as to engage with the bolt and control its movement. The bolt extends clear through the lock-case and is actuated by a spring to draw it into the case and out of its locking position, and is extended from the case in a position for locking by pressing against its outer end. When the bolt is in its unlocked position, its feather rests in the notches of the moving plates, and when it is shot the feather is carried beyond the plates, which automatically spring into positions to present a solid wall to this feather and prevent its backward movement. The bolt in this position is also positively held by a plate engaging in a cross-slot in it, as is more particularly described below.

In the drawings, A is the bolt, provided with the feather *a*, and B, C, and D are movable

plates respectively provided with the notches *b*, *c*, and *d*. The bolt A, in addition to the feather *a*, is provided with a cross-slot *a'*, adapted to receive the upper edge of the plate C. This plate is arranged in the lock so as to have an up-and-down movement, while the other two are arranged to tilt sidewise, as shown in the perspective view, Fig. 5. A spring E on the base of the lock-case F serves to force this plate upward, while springs G and G' operate to tilt plates B and D, the plates swinging upon the pivots *b'* and *d'*. In the position of the parts shown in Fig. 5 the bolt A is protruded from the lock-case in position for locking, in which position the plate C is in engagement with the cross-slot in the bolt A and securely holds it against movement, while the tilting plates B and D are thrown to one side and held there by their springs, presenting a solid wall to the end of the feather *a*. When the key is inserted in the lock, the middle plate C is forced down out of engagement with the slot *a'* of the bolt A and the plates B and D are brought into an upright position, in which the slots of these plates will be in line. The bolt is then forced into the case by the springs H, which bear against the cross-pin A' on the bolt A. The position of the tilting plates when the bolt is projected into a locking position is clearly shown in Fig. 4, and the position of the bolt and these plates when the bolt is drawn into the lock-case is shown in Fig. 9.

The lock is applicable to a variety of purposes, one of which—its application to milk-cans—I have shown in Figs. 1, 2, and 3. In these figures the lock F is set into the lips I of the milk-can J. The cover of the can consists of a dome K and a neck L, which fits into the neck of the can J. The neck L is usually made with an annular groove *i*, as shown in Figs. 1 and 2. When so made, the locking of the cover to the can is conveniently done by allowing the bolt A of the lock to enter this groove. When the part L is made straight, as shown in Fig. 3, a bearing-surface for the lock-bolt may be obtained by means of a bead M on L. By securing the lock in this relation to the can and its cover the cover may be put on without reference to the point on the circumference of the can at which the lock may be located, and then locked by simply

pushing the bolt A outwardly to engage the groove or bead on the neck of the can-cover.

It will be observed that my improved lock is set in the case in such a way that there is
5 no part protruding from the case in a position in which it can be struck by coming in contact with another can or other obstacle, an essential feature in a practical milk-can lock. It will also be seen that the can-cover can be
10 locked in its position on the can without necessitating the use of a key.

What I claim as new, and desire to secure by Letters Patent, is—

In a lock, the combination of a bolt provided with a feather and a cross-slot, two tilt- 15
ing plates having notched edges, and a third locking-plate the edge of which is adapted to enter the cross-slot in the bolt and hold it against displacements when it is in its locked position, substantially as described. 20

Signed at New York, in the county of New York and State of New York.

JAMES T. HOILE.

Witnesses:

CHARLES C. PETERS,
EUGENE V. MYERS.