(No Model.)

J. L. & C. P. HOWARD.

LAMP FOR RAILWAY CARS AND OTHER PURPOSES.

No. 271,462. Patented Jan. 30, 1883.

Fig. 1.

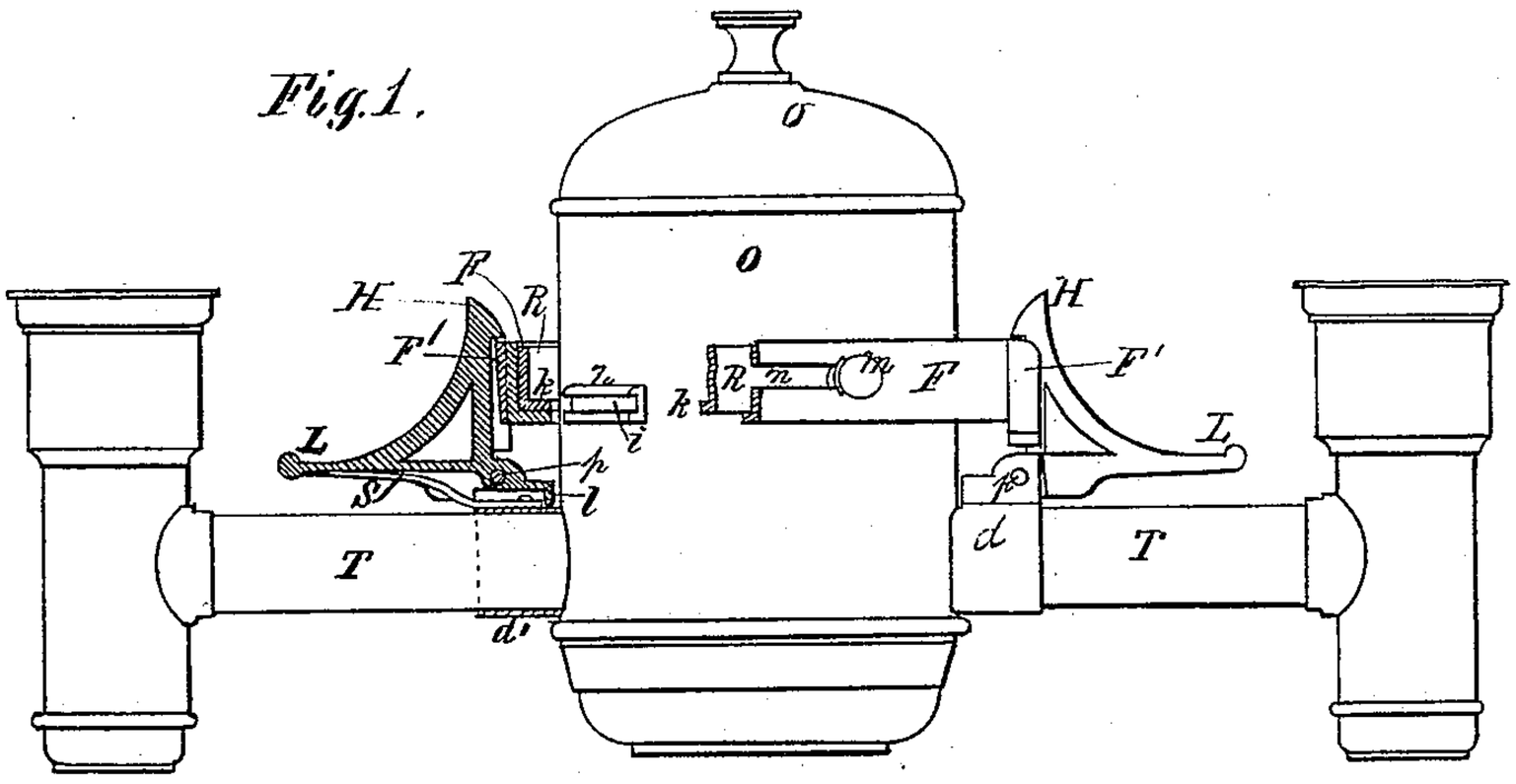


Fig. 2.

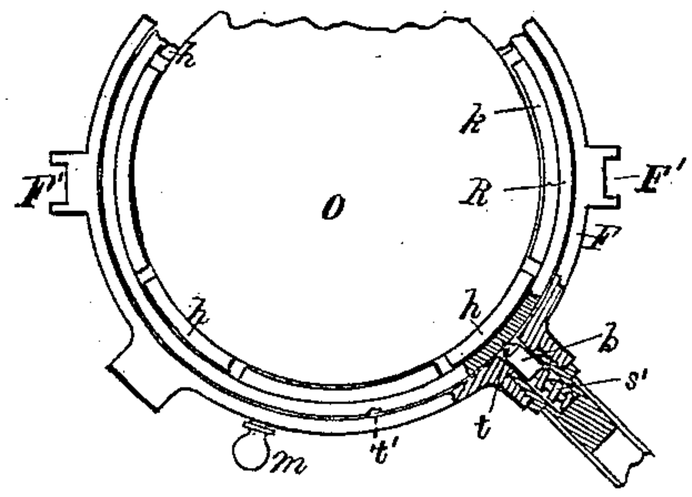


Fig. 4.

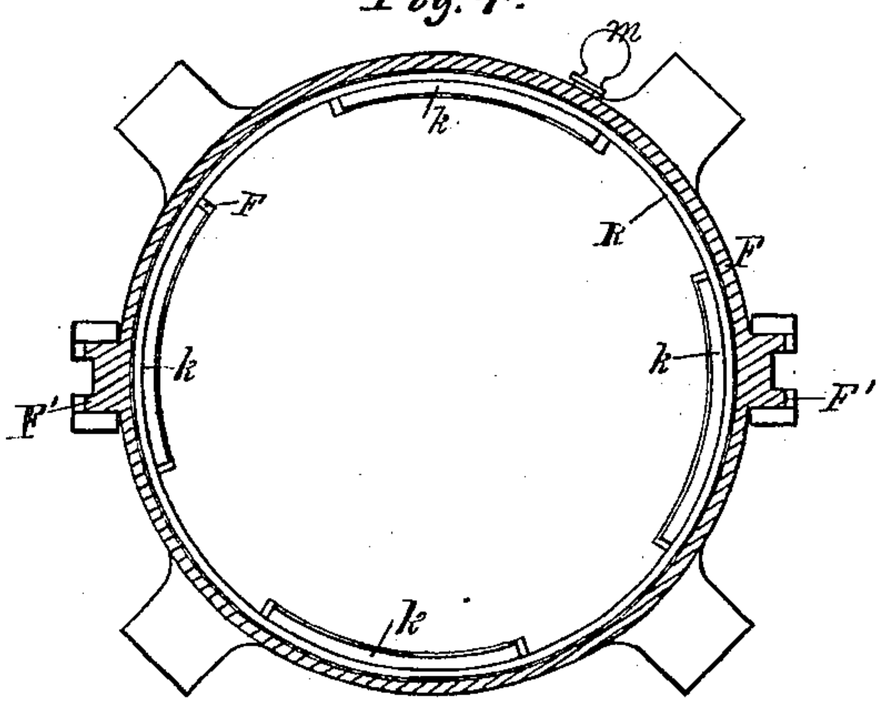
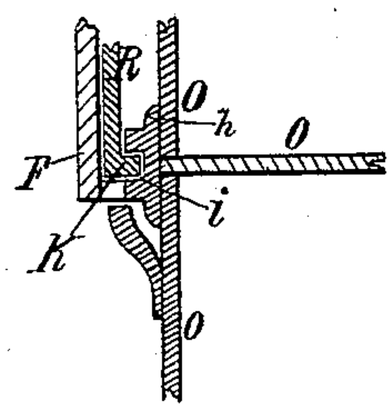


Fig. 3.



Witnesses:
B. C. Fenwick.
J. P. Theo Lang.

Inventor.
James L. Howard
Charles P. Howard
by their Attys.
Fenwick & Lawrence

UNITED STATES PATENT OFFICE.

JAMES L. HOWARD AND CHARLES P. HOWARD, OF HARTFORD, CONNECTICUT, ASSIGNORS TO JAMES L. HOWARD & CO., OF SAME PLACE.

LAMP FOR RAILWAY-CARS AND OTHER PURPOSES.

SPECIFICATION forming part of Letters Patent No. 271,462, dated January 30, 1883.

Application filed December 4, 1882. (No model.)

To all whom it may concern:

Be it known that we, JAMES L. HOWARD and CHARLES P. HOWARD, citizens of the United States, and residing at Hartford, in the county of Hartford and State of Connecticut, have invented a new and useful Improvement in Lamps for Railway-Cars and other Purposes, which is fully set forth in the following specification and accompanying drawings.

The center oil-lamps at present extensively used in lighting railway-cars are what are known as "double lamps." In them the oil is held in a central fount having two horizontal tubes extended in opposite directions, at the extremities of which are vertical tubes carrying the burners. It is necessary for the purposes of filling and cleaning that the oil-fount, with the burners and chimneys, should be readily detached from the lamp-frame, and when made ready for lighting be conveniently replaced. In rapidly returning the founts to the lamps after filling, particularly in cars with high ceilings and when in motion, it is desirable to first fasten the fount in place by simply pushing it vertically into the lamp-frame and firmly supporting it there by a spring latch or catch until a more positive latching or locking device can be brought into operation and secure it against being forced from its fastenings.

The object of our invention is to provide a two-burner lamp-fount with a double latching or locking mechanism, the first device to operate as a spring latch or catch to support the fount in place, the second device to operate as a more positive latch or lock to secure the fount solidly and immovably in the lamp-frame until detached for refilling.

This invention consists—

First, in the combination, with a frame-ring having beveled lugs, of a pair of hooks standing above and pivoted to the horizontal fount-tubes, having levers extending horizontally and parallel to the tubes, against the under side of which are pressure-springs which cause the hooks to close upon and hold to the permanent ring of the lamp-frame. These levers also serve as means whereby to disengage the hooks when the fount is to be detached from the frame.

Second, in the combination, with a locking-bolt, of a locking-ring turning within the permanent frame-ring, having a horizontal internal flange at its lower part cut away at intervals to allow corresponding projecting lugs on the fount-body to pass through it, the lugs having grooves turned in them corresponding to the internal flange of the locking-ring, so that the flange can enter the grooves as the ring is turned, thereby taking the weight of the fount upon the horizontal flange of the locking-ring, and also in certain constructions hereinafter described and specifically claimed.

In the accompanying drawings, Figure 1 is a side view, showing our invention partly in elevation and partly in section, and ready to be unlatched and withdrawn from the frame-ring. Fig. 2 is a horizontal broken view of the same, partly in plan view and partly in horizontal section. Fig. 3 is a broken detail vertical section of the lamp as fully locked; and Fig. 4 is a horizontal section of the frame-ring.

In the aforesaid drawings, for the sake of clearness, the brackets supporting the permanent frame-ring from the ceiling of a railway-car are not shown, they constituting no part of our claim under this application.

F represents the permanent frame-ring of a lamp, supported by brackets from the ceiling, (not shown in the drawings;) O, the central oil-fount; T, the horizontal tubes, at the extremities of which are the vertical burner-tubes; H, the locking-hooks, pivoted at *p* to the casting *d*, which surrounds and grasps the tubes T.

L represents the levers, extending horizontally from the hooks H; S, the springs, bearing against the under side of the levers, causing the hooks to close upon the frame-ring. The parts *l* of the hooks, extending horizontally in the opposite direction from the levers L, form stops to limit the throw of the hooks caused by the pressure of the springs.

F′ are the beveled guides, cast or riveted to the frame-ring, for guiding and opening the hooks H as the fount is pushed up into place in the frame. As the points of the hooks ride up the inclined surfaces of the guides they are forced open until the fount comes up to place, when the hooks snap over the guides and support the weight of the oil-fount.

R represents the locking-ring, turning within the frame-ring F. It is operated by means of the thumb knob or ball *m*, through the slot *n*. At its lower part the notched flange *k* rests upon the correspondingly-notched flange of the frame-ring F, both flanges being notched or cut away at intervals sufficient to allow the interlocking lugs *h* on the fount O to pass when the fount O is being withdrawn from the frame-ring F, for the purposes of filling and cleaning or for reinsertion into the frame-ring. When the locking-ring R is turned by moving the thumb knob or ball *m* to the extremity of the slot *n*, the flange *k* enters the groove *i* in the lugs *h* and supports the oil-fount securely in place.

In the periphery of the locking-ring R is the notch *t*, engaging with the point of the spring-bolt *b s'*, when the thumb knob or ball *m* is at the extremity of its throw and the openings in the flange *k* are in position to allow the lugs *h* to pass during the act of withdrawing the fount O from frame-ring F. The depth of the notch and the length of conical end of the spring-bolt are proportioned so that considerable force is required to start the bolt out of this position, as it is desirable that it be held in position ready for reinsertion of the oil-fount. A second and similar notch, *t'*, also secures the locking-ring R at the other extremity of its throw when the fount is locked in its place, preventing its gradually working back to its unlocked position.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. In a lamp having a detachable oil-fount, the combination of two locking devices for holding the fount in place, the first a self-operating spring-catch, the second a positive lock, substantially as described.

2. In a lamp having a detachable fount, the combination, with a notched-flanged frame-ring, F, of external guides, F', ring R, with notched flange *k*, lever locking-latches H, grooved lugs *h*, and a locking-bolt, *b*, substantially as and for the purpose described.

3. In a lamp having a detachable oil-fount, the combination, with a frame-ring, F, having beveled guides F', of a self-operating spring latching or locking device for holding the fount in place, consisting of the lever-hooks L H and spring S, substantially as described.

4. The combination, with the flanged notched frame-ring F, of the movable locking-ring R, provided with notches *t t'*, and the spring-bolt *b s'*, substantially as described.

JAMES L. HOWARD.
CHARLES P. HOWARD.

Witnesses:
GEORGE C. BARNES,
ALBERT L. BURKE.