F. COOPER.

Freight-Car Door-Locking Device.

No. 211,972. Patented Feb. 4, 1879.

Fig. 1.

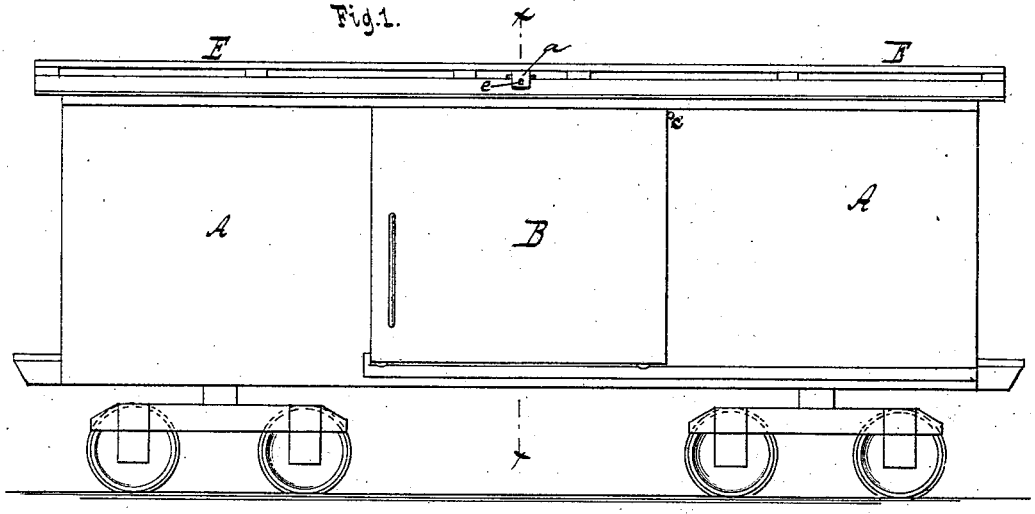


Fig. 2.

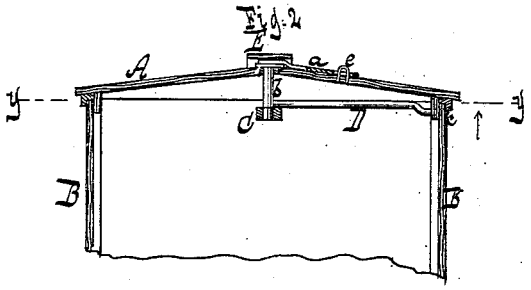


Fig. 3.

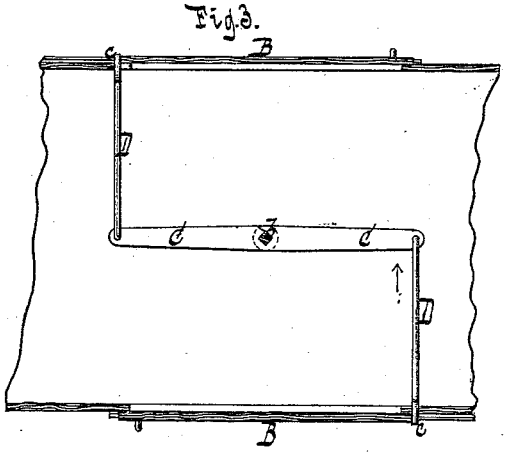
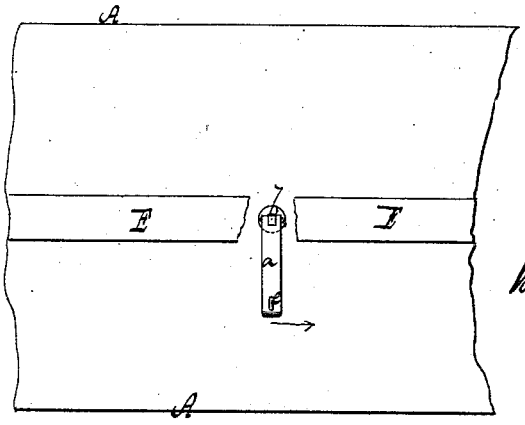


Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

FRANCIS COOPER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND CHARLES A. DENNISTON, OF JERSEY CITY, NEW JERSEY.

IMPROVEMENT IN FREIGHT-CAR-DOOR LOCKING DEVICES.

Specification forming part of Letters Patent No. **211,972**, dated February 4, 1879; application filed July 25, 1878.

To all whom it may concern:

Be it known that I, FRANCIS COOPER, of the city of Philadelphia, in the State of Pennsylvania, have invented a new and useful Improvement in Locking Devices for Freight-Cars, which invention is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation. Fig. 2 is a section in the plane *x x*, Fig. 1. Fig. 3 is a section in the plane *y y*, Fig. 2, looking in the direction of the arrow. Fig. 4 is a partial plan view.

Similar letters indicate corresponding parts.

The object of this invention is to provide for the simultaneous bolting or unbolting by one person of the doors on opposite sides of a freight-car; and it consists in the arrangement of two bolts supported just under the car-roof, and operated in opposite directions by a centrally-pivoted lever, to which they are connected, and which is swung by a hasp attached to the end of a vertical shaft, on which said lever is mounted, said end of this vertical shaft projecting through the roof of the car, all of which will be hereinafter more particularly described and claimed.

In the drawings, the letter A designates a freight-car. B B are sliding doors. Ordinarily these doors are locked by means of a hasp attached to the end of the door and a staple fastened to the side of the car. The disadvantage of this arrangement is that the padlocks which close the doors can often be tampered with, since the brakemen and other employés of freight-trains are on the roofs of the cars. My invention has for its object to prevent such tampering by placing the locking-device on the roof of the car, where it is always in view of the brakemen.

Another object of my invention is to prevent any one in the interior of the car from locking or unlocking the doors of the car, since I have frequently found that tramps lock themselves in the car, pack up goods, and at prearranged stations deliver the same to their confederates.

The letter *a* designates a hasp. The end of this hasp fits onto the head or end of a pivot, *b*. To the other end of the pivot *b* is keyed or firmly attached a double-armed lever, C, Fig. 3. To this lever C are hinged locking bars or bolts D D, Figs. 2 and 3. In the examples shown in the drawings these bolts D are shown protruding through openings *c c* in the sides of the car, thus preventing the doors B B from being slid back and opened. In this position the eye of the hasp *a* passes over the staple *e*, and said hasp can be held in place by a padlock. Since this padlock is on the roof of the car it is always in full view of the brakemen on the roof, and thus any tampering with the lock would be observed by them.

By swinging the hasp around in the direction of the arrow Fig. 4 the lever C revolves in the direction of the arrow Fig. 3. The bolts are withdrawn, and the doors can be opened. Of course, these bolts can also be made to pass through openings in doors B, and thus hold the doors shut.

The hasp *a*, instead of operating the lever C by means of a pivot, could also be connected to one end of the lever C, and the lever C be swung back and forth in that manner.

In my device I also prevent the lever C from being swung back and forth by any one in the interior of the car. I accomplish this in the following manner: In order that the bolts D D protrude far enough to lock the doors B B, the hasp must be swung around so far that its eye rests over the staple *e*. This hasp *a*, when off the staple *e*, rests on the roof of the car by its inherent gravity, and when the lever C is swung or operated from the inside of the car said hasp *a* strikes against the staple *e*, and can only be lifted up and placed in the staple *e* by some one on the roof of the car.

Of course, I could also provide a series of ratchet-teeth on the roof of the car, which would accomplish the same result; but I prefer to place the staple *e* in such a position that it accomplishes this result, and in this manner dispense with any additional mechanism.

At the upper part of the pivot *b*, and attached to the same, is a flange, which covers the opening in the roof of the car, in which works the pivot *b*, thus preventing any rain or moisture from dripping through said opening, and thus damaging any goods. The pivot

b is also further protected by being placed under the footway E, on which the employés pass back and forth.

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

1. The combination, with the separate sliding doors on opposite sides of a car, of the centrally-pivoted lever C, the bolts D, attached to opposite ends of said lever, and extending laterally therefrom in opposite directions, and the car-walls provided with openings for the passage of said bolts, substantially as described.

2. The combination, with the separate sliding doors on opposite sides of the car, and the centrally-pivoted lever C, having the bolts D, extending laterally therefrom in opposite directions, of the shaft *b*, extending upward through the roof of the car, the hasp *a*, attached to the projecting end of said shaft, and the staple *e*, substantially as described.

In testimony whereof I have hereunto set my hand and seal this 17th day of July, A. D. 1878.

FRANCIS COOPER. [L. S.]

Witnesses:

C. H. JORDAN,

E. F. KASTENHUBER.