W. F. UPHOFF.

CAR DOOR LOCK.

APPLICATION FILED AUG. 1, 1910.

991,116. Patented May 2, 1911.

Fig. 1.

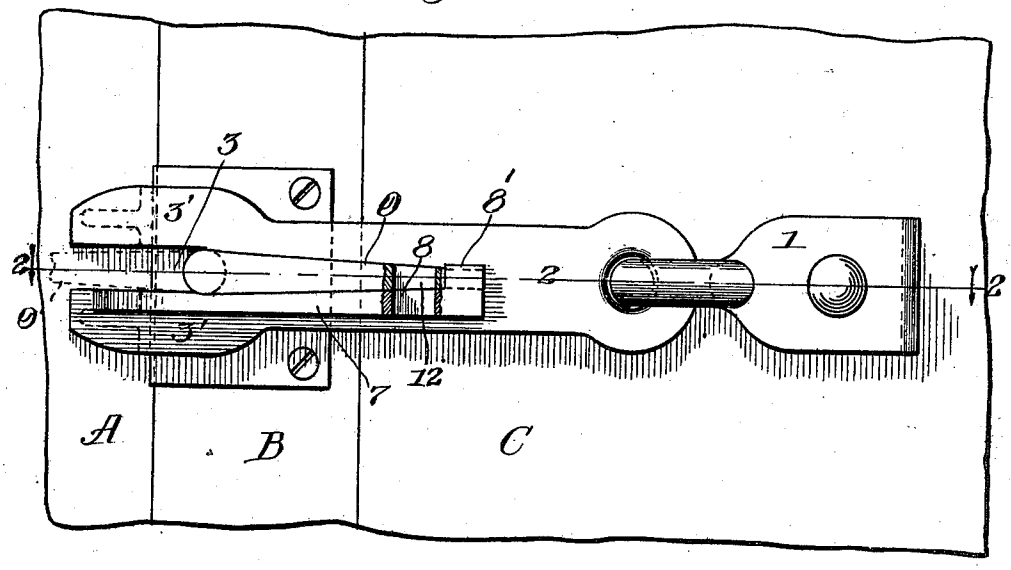


Fig. 2.

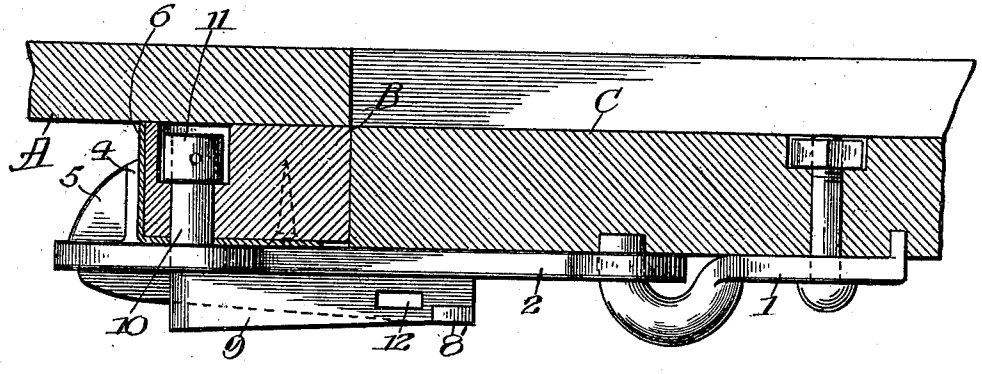
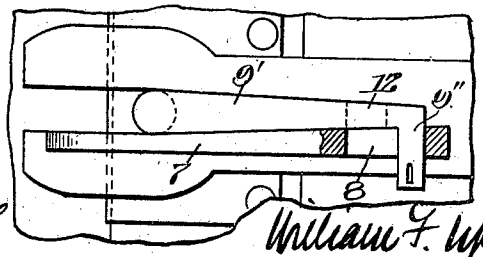


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM F. UPHOFF, OF CHICAGO, ILLINOIS.

CAR-DOOR LOCK.

991,116. Specification of Letters Patent. Patented May 2, 1911.

Application filed August 1, 1910. Serial No. 574,811.

To all whom it may concern:

Be it known that I, WILLIAM F. UPHOFF, a citizen of the United States, residing at the city of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Car-Door Locks, of which the following is a specification.

My invention relates to devices for securing sliding doors in a closed position, and is especially designed for application to the sliding doors of railway freight cars. In common practice the door which covers the opening in such cars closes with its front edge against a projecting stop. A hasp is secured to the door which engages with a device placed on the stop and to which it is secured and sealed. The device attached to the stop is usually bolted thereto and projects a little distance from the face thereof to the point of engagement with the hasp. The entire strain of sudden jars or shocks in transit or in switching which tends to move the door away from the stop is thrown upon the fastening, and the strain of such movement is communicated thereto aided by the leverage which the projection outward from the stop affords. This mechanical construction and these conditions tend to wrench the fastening from the stop and cause the latter to split, thereby permitting the door to be opened or disabling the car for use until repaired. Loss of time and goods is frequently the result and is an ordinary incident of railway practice at the present time in this respect.

The object of my device is to provide a simple, cheap and effective means of securing doors of the character described, which will not in any substantial manner depart from the present practice, of using a door hasp and sealing device. But by transferring the strains of the door through the hasp from the locking device on the face of the stop to the edge of the stop remote from the door I am able to avoid the difficulties explained above and have the advantage of the entire transverse strength of the stop to take the shock or tendency to shock occasioned by the movements of the car.

The principles of my invention are illustrated in the drawings, in which—

Figure 1 shows a front view of a portion of a car and the door and stop thereof; Fig. 2 is a cross section of the same on the dotted line 2—2. Fig. 3 shows an alternative form of the locking lever.

Further describing my invention with reference to the drawings: A represents a portion of a car, B a door stop, and C a door closed against the stop.

1 is a staple or fastening of the usual pattern to which is attached my improved hasp. This consists of a body portion 2 secured at one end to the staple 1 and having the other end extended across and beyond the door stop. The free end is bifurcated to form an open ended slot between the members, and each of the branches 3′ opposite the outside edge of the stop is provided with a downwardly turned extension 4 and strengthening rib 5. Such projection is adapted to bear upon the outer edge of such stop and take the strain of any opening movement of the door. A bearing plate 6 may be provided if desired, but I do not consider it necessary in actual practice and, if used, is to be considered as a part of the stop. On the face of the hasp is a projection or flange 7 which should be provided with an opening 8. The locking lever consists of the arm 9, and the shaft 10. The latter is inserted in the stop and secured in place by a keyed washer or collar 11 or by any other suitable means. The arm 9 should be provided with an opening 12 adapted to register with the opening 8 in the flange 7. The said flange may also have an upward projection 8′ and the lever 9 may be suitably shaped to seat itself with reference thereto. An alternative form of the locking lever is shown in Fig. 3. The opening 8 in flange 7 is enlarged to take both the seal and the downward end 9″ of the lever arm 9′.

The illustration shows the device in the locking position, in which a seal of any usual type may be passed through the openings 8 and 12. It will be seen that any strains tending to open the door will be transferred directly to the face of the stop, thus utilizing the entire strength thereof and avoiding any possibility of splitting as is frequently done by the present practice, in which the hasp is secured to a staple or other fastening device placed midway of the breadth of the stop. When it is desired to unfasten the door the seal is broken and the lever 9 given a half turn, at which point the bifurcations of the hasp will be free to pass on either side of the lever, thus unlocking the door.

I claim:

1. In combination with a sliding door having a stop substantially flush therewith; a

hasp having one end secured to the door and having the other end provided with a downturned portion adapted to engage against the edge of the stop remote from the door, and a movable device attached to the stop for securing the hasp in said position.

2. In combination with a sliding door having a stop substantially flush therewith; a hasp having one end secured to the door and the other end having bifurcations provided with downturned portions adapted to bear against the edge of the stop remote from the door, and fastening means extended between said bifurcations for securing the hasp in said position.

3. In combination with a sliding door having a stop substantially flush therewith; a hasp having one end secured to the door and having the other end provided with bifurcations adapted to engage the edge of the stop remote from the door, a one armed lever pivoted to the stop between the branches of the hasp, and means for sealing said lever to the hasp.

4. In combination with a sliding door having a stop substantially flush therewith; a hasp having one end secured to the door and having the other end bifurcated and the branches thereof provided with downturned portions adapted to bear against the edge of the stop remote from the door, a flange on the outside of said hasp, a one armed lever pivoted to the stop between the branches of the hasp, and means for sealing said lever to the said hasp flange.

5. In combination with a sliding door having a stop substantially flush therewith; a hasp having one end secured to the door and having the other end provided with a downturned slotted portion adapted to engage against the edge of the stop remote from the door, a rotatable lever in the slotted portion and pivoted to the stop, and a lug on the hasp to limit the movement of said lever.

In witness whereof, I have hereunto set my hand, this 21st day of July A. D. 1910, in the presence of two subscribing witnesses.

WILLIAM F. UPHOFF.

Witnesses:
C. K. CHAMBERLAIN,
A. S. PHILLIPS.