

M. C. DEVINE.
FASTENING FOR FREIGHT TRAIN DOORS.
APPLICATION FILED DEC. 15, 1908.

933,632.

Patented Sept. 7, 1909.

Fig. 1.

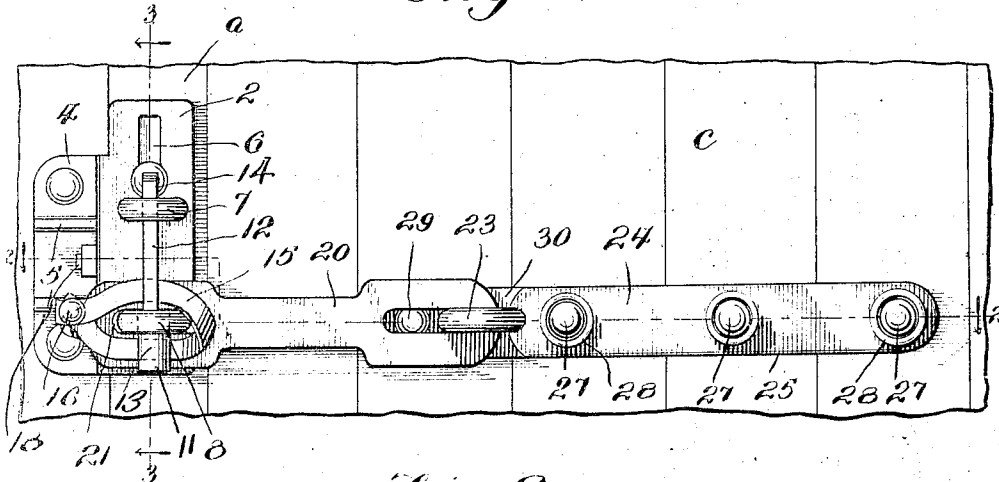


Fig. 2.

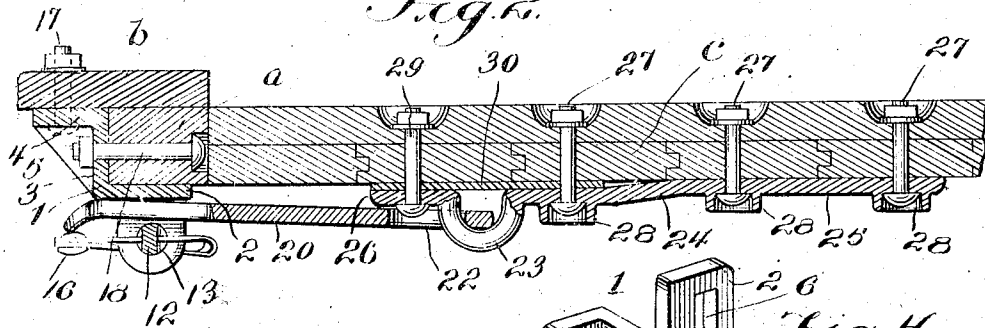


Fig. 3.

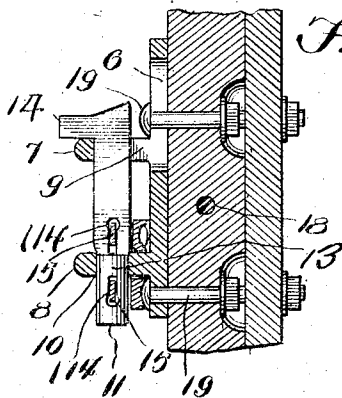


Fig. 4.

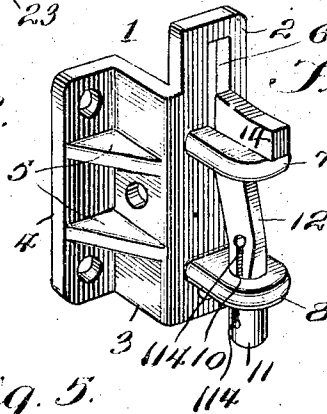
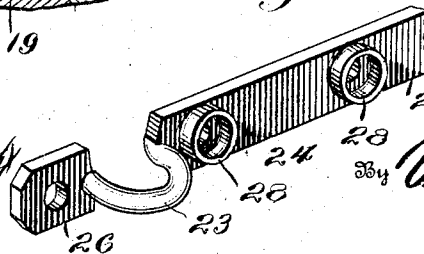


Fig. 5.



Witnesses

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FASTENING FOR FREIGHT-TRAIN DOORS.

933,632.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MICHAEL C. DEVINE, a citizen of the United States, residing at Sedalia, in the county of Pettis and State of Missouri, have invented new and useful Improvements in Fastenings for Freight-Train Doors, of which the following is a specification.

This invention relates to improvements in fastenings for freight car doors, the object of the invention being to provide improved devices of this character which will effectually prevent the door from being opened by unauthorized persons and also prevent the door, door post and door stop from being injured.

One object of the invention is to effect improvements in the construction of the keeper.

A further object is to effect improvements in the construction of the sealing pin which secures the hasp in place.

A further object is to effect improvements in the construction of the door strap which serves the purpose of a staple in securing the hasp to the door.

In the accompanying drawings:—Figure 1 is an elevation of door fastening devices constructed in accordance with my invention, showing the same in use, a portion of the door and also a portion of the car wall or side being indicated. Fig. 2 is a sectional view of the same on the plane indicated by the line 2—2 of Fig. 1. Fig. 3 is a vertical sectional view of the keeper on the plane indicated by the line 3—3 of Fig. 1. Fig. 4 is a detail perspective view of the keeper and of the sealing pin. Fig. 5 is a detail perspective view showing the major portion of the door strap.

The keeper 1 comprises a web or face portion 2 to bear on the front side of the door stop *a*, a web or flange 3 at right angles to the web or face plate 2 and to bear on one edge of the door stop, a web or plate 4 to bear against the outer side of the door post *b* and reinforcing webs 5 which lie in the angle between and connect the webs 3 and 4. The web or face plate 2 is formed in its outer portion with a vertical slot 6 and is also formed with an upper lug 7 and a lower lug 8. In practice, and preferably the keeper is formed integrally and is a malleable cast-

ing. I do not desire, however, to limit myself in this particular. The upper lug 7 has a vertical longitudinal slot 9, the inner end of which is open and communicates with the slot 6, the latter extending somewhat below said upper lug. The lower lug 8 has a vertical cylindrical opening 10. The lower cylindrical portion 11 of the sealing pin 12 operates in the said opening 10. The shank or major portion of the sealing pin is flat and its thickness is less than the diameter of the lower cylindrical portion 11 so that the latter presents a shoulder 13 that projects from one side and serves, when the sealing pin is raised, to engage the underside of the upper lug 7 and limit the upward movement of the pin, the upper, cross sectionally angular portion of the sealing pin operating in the slot 9 of the upper lug and the said sealing pin being formed at its upper end with an outwardly extending arm 14 to bear on the upper lug when the sealing pin is in lowered locking position, as shown in the drawings. The said sealing pin is provided at points immediately above and below the lug 8, when the sealing pin is in lowered position, with transverse openings 114 for the reception of the arms of a sealing strip 15, the ends of which strip, in practice, are brought together after the sealing pin has been fitted in place and secured together as by means of a lead seal which is indicated at 16. The web or flange 4 of the keeper is provided with bolt holes for the reception of bolts 17 which serve to securely fasten the keeper to the door post. The intermediate web 3 is provided with a bolt hole for the reception of a bolt 18 which passes through and the head of which is countersunk in the car door stop *a*, the said bolt in addition to its function of additionally securing the keeper also serving to greatly strengthen the door post and prevent the latter from splitting as will be understood. I also employ a pair of bolts 19 to additionally secure the keeper in place, one of said bolts passing through the door stop *a* and also passing through the slot 6, the other bolt 19 passing through the door stop and also through an opening immediately below the lower lug 8. The head of the upper bolt 19 lies between the inner side

of the sealing pin 12 and the outer side of the face plate 2 of the keeper and prevents the removal of the sealing pin. When the keeper is removed from the door post and stop and the bolt 19 is removed from the slot 6, the latter and the communicating slot 9 afford clearance for the upper portion of the sealing pin 12 to enable the latter to be placed in or detached from the lugs 8, 9.

The hasp 20 may be of any suitable length and is preferably of the form here shown but may be of any other suitable form. Said hasp has at its outer end an opening 21 to enable it to engage the lower lug 8 so that the sealing pin 12 may be disposed on the outer side of the hasp to lock the latter in place. At the inner end of the hasp is a slot 22 for the reception of the U-shaped neck or staple portion 23 of the door strap 24, which door strap is in practice preferably a malleable casting or may be otherwise constructed within the scope of my invention. The door strap is of suitable length and is divided by the neck or staple portion into an outer portion 25 and an inner portion 26. The outer portion 25 is of sufficient length to bear upon several of the planks of the car door and is provided with bolt holes and with sockets in its outer side for the reception of the bolts 27 which are employed to secure said outer portion to the door, the said sockets 28 serving for the reception of the heads of the bolts and protecting the bolt heads so that they can not be cut-off or drawn through the door. The inner portion 26 of the door strap extends inwardly from the neck or staple portion 23 toward the keeper 1 and lies within the hasp 20 and has an opening for the reception of a bolt 29, said bolt passing through the car door and serving to secure the inner portion of the strap thereto. It will be observed by reference to Figs. 1 and 2 of the drawings that the hasp, when the same is in locked position, lies directly on the head of the said bolt 29 and serves to effectually prevent a thief from prying out the inner end portion of the door strap, and the hasp also contributes to this result by bearing directly on and covering the head of such bolt.

It will be understood from the foregoing that it would be extremely difficult to disconnect the hasp from the car door and that it cannot be done without detection, the seal strip of course serving to prevent the sealing pin from being released without betraying the fact. Hence the class of persons who are accustomed to open car doors to steal articles from cars will be deterred from so doing by my improved car door fastening.

Referring again to the sealing strip, it will be observed that since it passes through openings which are immediately above and below the lower lug of the keeper, any effort

to drive the sealing pin upward to release the hasp will result in the cutting of the sealing strip by the coercion of the sealing pin and lower lug of the keeper and hence such attempt will be betrayed.

To prevent the inner end of the hasp from wearing and marring the car door, I employ a wear plate 30 which is interposed between the inner portion of the door strap and the door and is provided with openings through which the bolt 29 and one of the bolts 27 pass, this being clearly shown in Figs. 1 and 2. The slot 6 which communicates with the slot 9 affords clearance for the upper end of the sealing pin and enables the latter to be appropriately placed in the lugs of the keeper or removed therefrom.

What is claimed is:—

1. In car door fastenings of the class described, a keeper having a web or face plate to bear on the front side of a door stop and lugs projecting from said web or face plate and having openings for the reception and guidance of a sealing pin, an intermediate web at an angle to the first mentioned web to bear on one edge of the door stop and an inner web or flange parallel with the first mentioned web and extending from said intermediate web to bear directly against the outer side of the door post.

2. In car door fastenings of the class described, a keeper having a vertical slot, an upper lug and a lower lug, the latter having a vertical opening and the said upper lug having a slot the inner end of which opens into and communicates with the vertical slot of the keeper, and a sealing pin operating in said slot of the upper lug and said opening of the lower lug, said sealing pin having at its upper end an outwardly extending arm to bear on the upper lug when the sealing pin is in lowered position; the said vertical slot of the keeper, when unobstructed, coacting with the communicating slot of the upper lug to afford clearance for the upper portion of the sealing pin, when the latter is raised to disengage the lower lug and permit the detachment of the sealing pin from the said keeper.

3. In car door fastenings of the class described, a keeper having a vertical slot, an upper lug and a lower lug, the latter having a vertical opening and the said upper lug having a slot the inner end of which opens into and communicates with the vertical slot of the keeper, a sealing pin operating in said slot of the upper lug and said opening of the lower lug and having at its upper end a forwardly extending arm to bear on the upper lug when the sealing pin is in lowered position, and a securing bolt for the keeper extending through and obstructing the vertical slot thereof, said bolt, when in place in said slot preventing the removal of the seal-

ing pin, and said slot of the keeper and the communicating slot of the upper lug, when said bolt has been removed and said sealing pin has been raised to disengage the lower lug, affording clearance for the sealing pin and permitting the detachment thereof from the said keeper.

In testimony whereof I affix my signature in presence of two witnesses.

MICHAEL C. DEVINE.

Witnesses:

PETER HOFFMAN,
STELLA CARD.