(No Model.)

J. B. ROBINSON.

RAILROAD CAR DOOR CLEAT OR FASTENER.

No. 335,092. Patented Jan. 26, 1886.

Fig. 1.

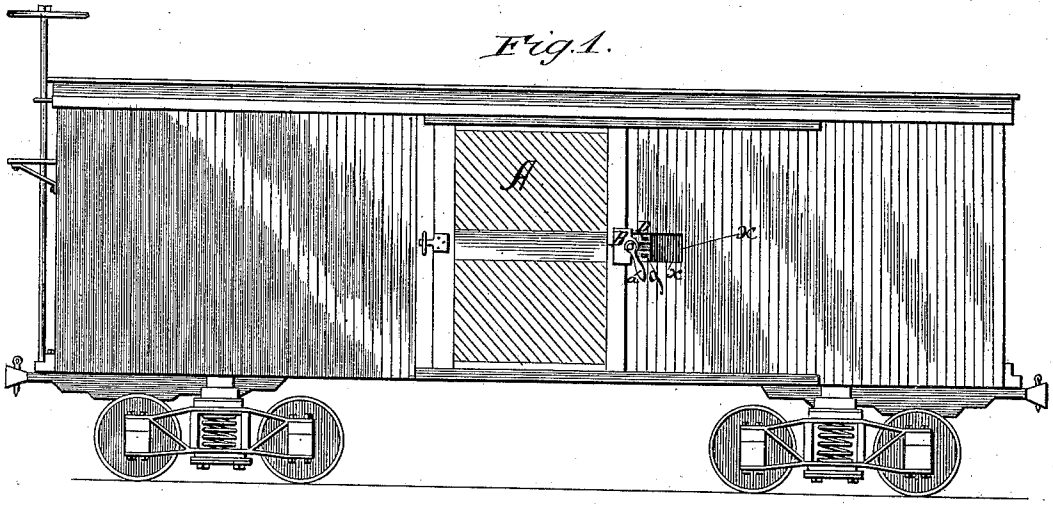


Fig. 2.

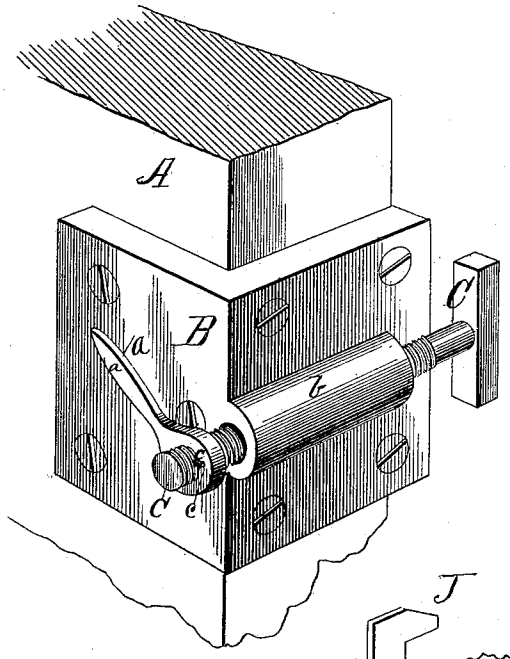


Fig. 3.

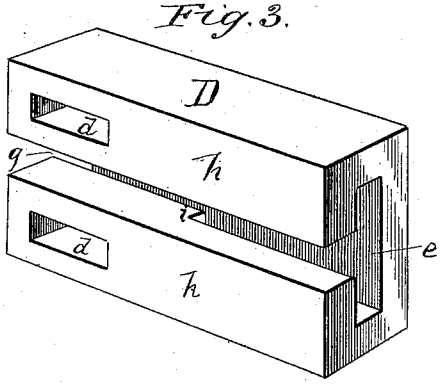


Fig. 4.

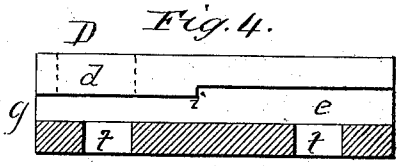


Fig. 5.

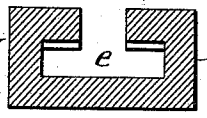


Fig. 6.

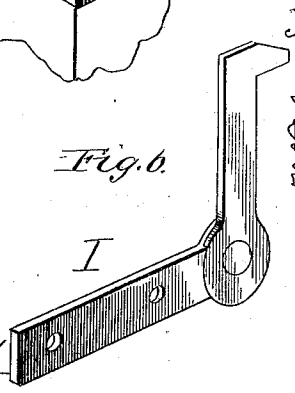
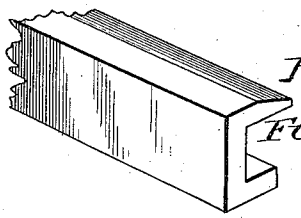


Fig. 7.



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UNITED STATES PATENT OFFICE.

JAMES B. ROBINSON, OF CHICAGO, ILLINOIS.

RAILROAD-CAR-DOOR CLEAT OR FASTENER.

SPECIFICATION forming part of Letters Patent No. 335,092, dated January 26, 1886.

Application filed May 28, 1885. Serial No. 166,923. (No model.)

To all whom it may concern:

Be it known that I, JAMES B. ROBINSON, of Chicago, Illinois, have invented a new and useful Improvement in Railroad-Car-Door Cleats or Fasteners, of which the following is a specification.

In the accompanying drawings, Figure 1 represents a freight or box car with the door cleated or locked with my device. Fig. 2 is a view in perspective of the rear edge of the door bearing a portion of my locking or cleating device. Fig. 3 is a perspective view of a slotted jaw forming a part of this invention, hereinafter described. Fig. 4 is a longitudinal sectional view of the slotted jaw with the lower half or bottom cut away, hereinafter described. Fig. 5 is an end view of the slotted jaw, as shown in Fig. 3. Figs. 6 and 7 form a modification of my invention, hereinafter described.

Similar letters of reference denote like parts in the drawings.

The object of this invention is to securely fasten and cleat a freight-car door, to prevent smoke, cinders, water, snow, or any damaging substance from entering the car, and at the same time locking the door in such a manner that it cannot be broken open, all of which I make clear in the following description.

The invention consists in this instance in an angle-plate having on its edge-surface centrally a semicircular boss extending nearly the full length of the edge inward, and perforated with a hole, through which moves loosely a T-head bolt, and a jaw slotted its entire length, as shown in Figs. 3, 4, and 5.

Referring to the drawings, A represents a car-door.

B is an angle-plate, having on its edge the boss *b*, perforated with a hole its entire length.

C is a screw-threaded T-head bolt, passing loosely through the perforation in the boss *b*, and carrying on its outer end the wrench-handled nut *a* and a small pin, *c*, to prevent the handle *a* from becoming unscrewed and lost.

D is the jaw, slotted its entire length longitudinally and vertically, as shown by *e*, Figs. 3, 4, and 5. A portion of this vertical slot on each side of the central longitudinal slot is made somewhat larger than the other, forming a shoulder, as shown at *i*, Figs. 3 and 4, for the purpose of preventing the T-head bolt from being pushed back after it has been drawn to its place by screwing down the wrench-handled nut *a* on the flat surface of the boss *b*, which action brings the T-head of the bolt C tight against the vertically-slotted surface of the jaw D in the enlarged portion of the slot, as shown by *e*, Fig. 4. The jaw D is embedded in the body or side of the car, its outer surface, *h*, being flush with the surface of the side of the car, so as to allow the car-door to pass freely over it when the bolt C has been loosened and withdrawn preparatory to opening the door, or when the device is not cleated or locked.

At one end of the jaw D are two slots, *d*, extending from the outside surface inward—one on each side of the central longitudinal slot, as shown in Figs. 3 and 4—through which may be passed the sealing tin or wire. The jaw D is fastened to the car by bevel-headed bolts passing through the holes *f*, Fig. 4, and secured on the inside of the car.

In Figs. 6 and 7, letters I, J, and K, is a modification of my invention. A metal strip, I, having a latch, J, may be fastened to the side or edge of the door, the single jaw K being embedded in the surface of the car in the same manner as the jaw D, so that when the door is pushed to its place the latch J may be dropped into the single jaw K and secured in any manner mechanically arranged.

The construction of my invention may be various, but in this instance is as follows: The angle-plate B is fastened at a central point (if but one be used, but if two be used the spaces apart should be divided equally) on the end or edge of the car-door by screws or bolts. Before the angle-plate is put on the door the bolt C is passed through the perforation in the boss *b*, the T-head of the bolt C brought up against the shoulder formed at the base of the boss *b*, when the wrench-handled nut *a* is screwed on, the small pin *c* being driven through the end of the bolt to prevent the nut *a* from being taken off or lost. The end of the bolt may be hammered to a rivet-head after the nut *a* is screwed on, for the same purpose as the pin, or both may be used. The T-head of the bolt C should always be wider than the width of the central longitudinal slot in the jaw D, to prevent its being turned lengthwise of the slot and removed, and a portion of this bolt from the head out-

ward may be made square to fit a corresponding box in the inner end of the boss *b*, which would prevent the bolt C from being turned so as to throw the T-head lengthwise of the slot; but as this is only in the different mechanical construction by which my invention may be put together, I do not deem it of any further importance than to mention it. The jaw D is set into the side of the car, with the central longitudinal slot on a line with the center of the bolt C. A small space is cut out of the wood-work of the car, as shown at *x*, Fig. 1, sufficiently large to allow the T-head of the bolt C to be entered into the mouth or end of the slot *e* when the door is being closed, and to be withdrawn when the door is being opened. The end of the jaw D, in which are the slots *d*, Fig. 3, should always extend toward the end of the car, as shown by *g*, Figs. 1, 3, and 4, so that when the door is being closed and the bolt C is passed into the slot and drawn up to its place near the shouldered portion of the slot in the jaw the slots *d* will be clear and free, that the sealing tin or wire may be passed through them and sealed, thus preventing the bolt C from being pushed backward past the seal until the seal is broken and removed.

The operation of my invention as applied to the door of a freight-car is as follows: The car having been loaded, the door A is pushed forward on the rails on the side of the car to a point where the T-head bolt C may be pushed into the space *x*, Fig. 1, cut out of the wood-work. The bolt-head, being now in position, enters the slot *e* as the door is pushed forward and closed. When the door has traveled its full distance and is tight against the vertical jamb on the edge of the doorway, the T-head of the bolt C should make a loose joint against the shoulder *i*, having of course entered the slotted jaw at *g*, Figs. 1, 3, and 4, and having been drawn to its position by screwing on the wrench-handled nut *a* on the surface of the boss *b*, which action draws the bolt-head against the inside of the lips of the jaw D, and brings the whole length of the inside surface of the car-door tight against the side of the car near the edge of the opening in the car, thus making a jamb or tight joint the whole length from top to bottom of the car-door, preventing water, snow, smoke, cinders, or any substance from beating in, as has heretofore been the case, causing damage to the freight, loss to the shipper, and claims against the railroads. After the door has been locked at its front edge by the ordinary method of securing the pin through the hasp by a sealing-wire and seal and perfectly cleated with my device, an additional wire or tin seal may be passed through the slots *d* and sealed with the tongs usually used for this purpose. The T-head of the bolt C, being larger in width than the central longitudinal slot, cannot be turned lengthwise of the slot and removed, and the shank of the bolt C for half its length from the T-head outward is made square, which fits a corresponding square box at the base of the perforation of the boss *b*, cast in the metal. The balance of the bolt is screw-threaded.

The object of making the bolt square at the shank, to pass through a square perforation in the boss *b*, is to prevent turning the bolt lengthwise of the slot in the jaw D.

When it is desired to unfasten the door, the seal may be broken and removed, and the nut *a* may be loosened sufficiently to relax the bolt C, which slides through the slot *e* into the space *x* as the door is pushed backward or opened. Then the bolt may be drawn out till the head comes against the base or shoulder formed by the boss *b*, the nut *a* being now screwed on again to hold the bolt in this position while the door is being opened, preventing the bolt C from scraping against the side of the car, and allowing a perfectly free movement of the car-door.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The plate B, with the boss *b*, having a perforation its entire length, fastened to the edge of a car-door, and a bolt, C, passing loosely through the boss *b*, and carrying a wrench-handled nut, *a*, and pin *c*, as and for the purpose set forth.

2. The jaw fastened to and embedded in the side surface of the car, having a longitudinal and horizontal slot its entire length, bearing a shoulder on its inside surface or lips, and having two lateral slots from its outside surface inward, one on each side of the longitudinal slot, as and for the purpose shown and described.

3. In a car-door cleat or fastener, the combination of a bolt passing through a perforated plate fastened to the edge of a car-door with a jaw set into the surface of or fixed to the side of a car, as and for the purpose set forth and specified.

4. The combination of the plate B and bolt C, carrying the handled nut *a* and pin *c*, and fastened to a car-door, with the jaw D, embedded in the surface or fixed to the side of a car, all as and for the purpose set forth, shown, and described.

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