

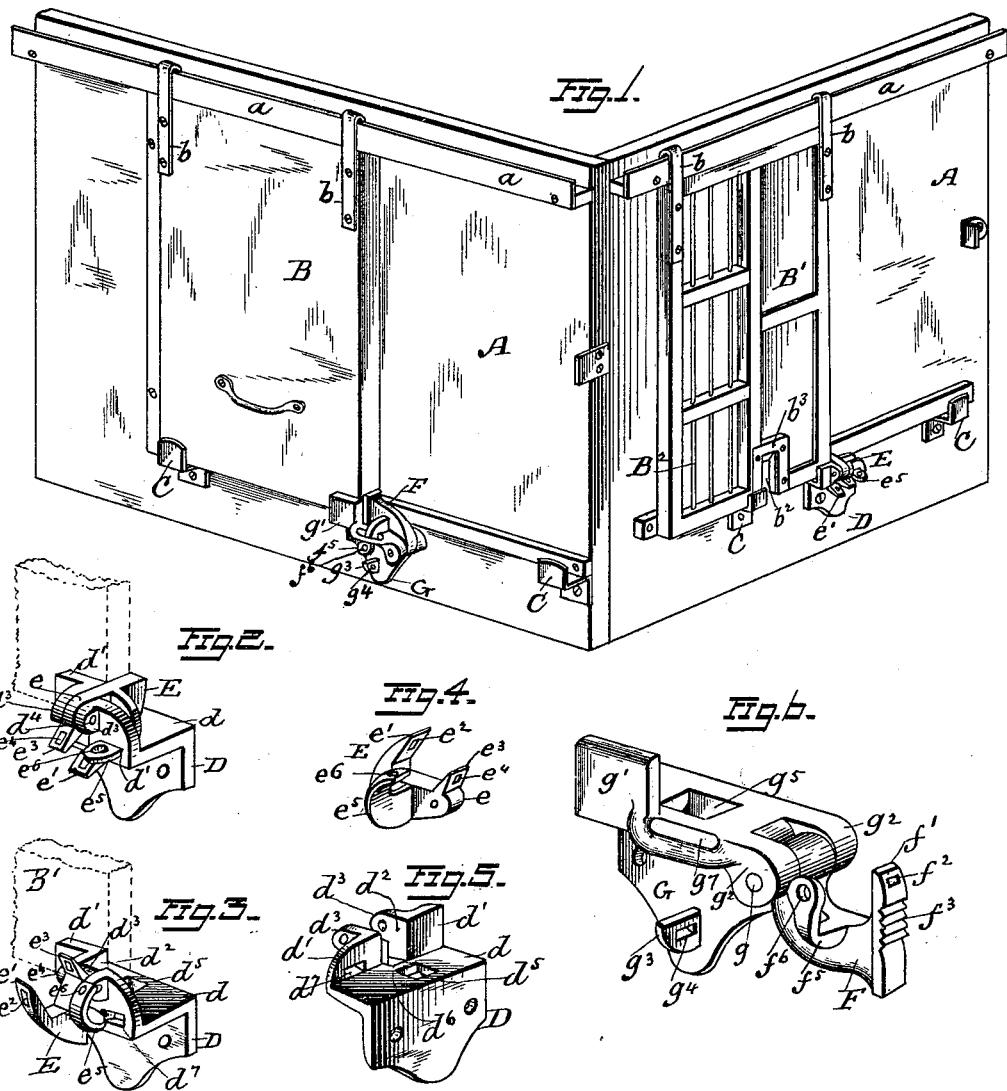
(No Model.)

I. H. CONGDON.

SLIDING DOOR FASTENER.

No. 346,192.

Patented July 27, 1886.



Witnesses

O. W. Wurteman.

W. B. Masson

Inventor:

Isaac H. Congdon,

by E. E. Masson

atty.

UNITED STATES PATENT OFFICE.

ISAAC H. CONGDON, OF OMAHA, NEBRASKA.

SLIDING-DOOR FASTENER.

SPECIFICATION forming part of Letters Patent No. 346,192, dated July 27, 1886.

Application filed April 19, 1886. Serial No. 199,297. (No model.)

To all whom it may concern:

Be it known that I, ISAAC H. CONGDON, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Sliding-Door Fasteners for Railway - Cars, of which the following is a specification, reference being had therein to the accompanying drawings.

In the advancement and development of railways and their appliances particular attention has been paid to the simplifying and perfecting of details, particularly the fastenings, by means of which the doors of freight-cars are secured. It was formerly considered best to lock the doors with heavy and exceedingly strong locks, so as to make cars practically a moving safe. The first cost of such locks and fasteners was very great, and long experience has shown that they are very expensive to keep in repair, and that cars so equipped are practically unsuited for transfer on other lines, where the care and handling of the fastening device is improperly understood. Doors are now held to place by fasteners which can be operated by unskilled persons. These fasteners, when in their latched position, are themselves secured by seals of tin or wire, the arrangement being such that the seal will have to be broken before the fastener can be unlatched. This system has now been thoroughly tried, and has been generally adopted. Now, though this system has proven satisfactory, it is not so with the latches which have been used with it. The contrivance for this use, to give good results, must be cheaply made, simple in its construction, and durable. It should also be of such construction that, if desired, a door can be fastened in any position—viz., when closed, when partially, or entirely open. This is necessary, as many railway-cars—such as stock and combination cars—have doors made twice as wide as the door-opening, one half of which has open panels guarded by iron bars, while the other half is solid, the grating and solid panels of the door being alternately over the door-opening, to suit the character of shipment. All of these conditions are fulfilled by my device, which can be used for doors which need to be locked in one position only, or in two or more positions.

Referring to the drawings, Figure 1 is a per-

spective view of a portion of the side and end of a railway freight-car, showing doors closed and secured by fasteners constructed in accordance with my invention. Fig. 2 is a perspective view of one of my fasteners, showing the position of the parts when the door is closed and secured. Fig. 3 is a perspective view of the same, showing the position occupied by the latch of the fastener when the door is open or ready to be opened. Fig. 4 is a perspective view of the inner or rear side of the latch. Fig. 5 is a perspective view of the inner or rear side of the bracket used to carry the latch. Fig. 6 is a perspective view showing a modified form of fastener constructed in accordance with my invention.

Although Fig. 1 shows one of the doors apparently secured to the end of the car, this is simply to facilitate the illustration of the invention, as these doors seldom occupy that position, but are placed upon the side of the car.

The sides of the car are represented at A and the doors at B and B'.

Freight-car doors are suspended from the sides thereof by hangers b, having their upper end hooked and generally provided with rollers to travel upon a horizontal flat bar, a, projecting from the sides of the car. The doors are also guided at the bottom by hooked brackets C, and some of these brackets are of modified form, and have pivoted thereto a latch to retain the door either open, partly open, or closed, as may be desired, and simply latched or locked, or sealed, or both locked and sealed.

The form of fastener preferred consists of the bracket D, and its latch E, pivoted thereto. This bracket is secured by bolts to the side of the car, with its top surface, d, upon the same level with the bracket C, and from this surface projects upward the flange d', to guide the bottom of the door and prevent it from swinging outwardly. This flange d' has formed therein a transverse groove, d'', for the passage of the latch E, and on the sides of this groove there are projecting lugs d''', perforated to receive the pivot pin or rivet d'', upon which the latch is pivoted at its inner end, e. In the top d of the bracket a perforation, d'', is made for the passage for the hooked outer end, e', of the latch; but a strip of metal, d'', is left

in the bracket between the perforations d^5 and the groove d^2 , to prevent any displacement of the latch after it has been wire-sealed.

To receive a sealing-wire, the hooked outer end, e' , of the latch has a perforation, e^2 , and close to its inner end said latch carries a lug, e^3 , having a perforation, e^4 , and as the strip of metal d^6 of the bracket occupies a position between the hooked end e' and the lug e^3 , when the door is latched, the latch cannot be rotated without breaking the seal-wire.

To permit the latch to be secured either in connection with a sealing-wire or independently thereof, there is projecting from one side of the latch a bent arm, e^5 , the end of which is made to pass through a perforation, d^7 , in the vertical flange d' of the bracket, and in the end of the bent arm e^5 there is a perforation, e^6 , to receive the hasp of a padlock or other fastening. If the door is double the width of the opening in the side of the car, and the character of the shipment is such that it is desirable to exclude the free passage of air through the car, the door is moved, as shown in the drawings, so that its solid portion is over the opening, and the door secured by throwing the latch against its side edge, as shown in Figs. 1 and 2; but if it is desired to bring the grated portion B^3 of the door opposite the opening in the car the door is pushed along upon its supporting-rail a until the slot b^2 in the bottom edge of the door comes opposite the latch E , when the latter is swung into said notch, and secured in the same manner as above described. The edges of the slot b^2 are protected against wear or against being bruised, if the latch is thrown forward when not directly in line with the slot, by a slotted plate, b^3 , secured to the door by wood-screws. As the door may have more than one slot b^2 along its bottom edge for the reception of the latch, it is evident that the door could be retained secured to the car in any desired position.

In the modification of latching device (shown on a larger scale in Fig. 6) the latch F is pivoted at g between perforated lugs g^2 , formed on one end of the bracket G , and is thus adapted to swing directly in the path of the door, the latch in Fig. 6 being shown as turned down, while in Fig. 1 it is turned up against the edge of the door, and keeps the door from sliding on its ways. The bracket has an upward flange, g' , to keep the door from swinging outwardly, and it has in its top an opening, g^3 , to receive the hooked end f' of the latch, and said end has a perforation, f^2 , to receive the sealing-wire, that is to retain the point of the latch down, and for this purpose the said wire is passed through a perforation, g^4 , in the lug g^3 , projecting from the face of the bracket.

As it may be desired to use a padlock with

or without the wire seal, there is projecting from one side of the latch F a bent arm, f^5 , having an eye, f^6 , at its extremity to receive the hasp of a padlock. When the hooked end of the latch is swung down to secure a door, the bent arm f^5 enters a slot g^7 in the side of the bracket, and, if after its entrance, the hasp of a padlock is passed through the eye f^6 the latch cannot be displaced from its position against its edge of the door without first removing the padlock. The serrations f^8 in the face of the latch are to obviate the tendency of the door lifting the latch when said door is crowded against it by the surge of the car when in motion.

Having now fully described my invention, I claim—

1. A car-door bracket consisting of an angular casting having perforations to receive securing-bolts, a horizontal surface to support a sliding door, and a vertical flange, and pivoted to said bracket a hooked latch, the free end of which is adapted to enter an opening in said bracket and bear against the door to secure it, substantially as described. 80

2. A car-door bracket consisting of an angular casting having perforations to receive securing-bolts, a horizontal surface to support a sliding door and a vertical flange, and pivoted to said bracket a hooked latch the free end of which is adapted to enter an opening in said bracket, and has a perforation for the reception of a sealing-wire inserted therein 95 for connection with the bracket, substantially as described.

3. A car-door bracket consisting of an angular casting having perforations to receive securing-bolts, a horizontal surface to support a sliding door and a vertical flange, and pivoted to said bracket a latch having its free end hooked, and a bent arm projecting from the side thereof, said bracket carrying the hinge-pin of said latch, and having perforations in its top to receive therethrough the free end of the latch and of the said bent arm, substantially as and for the purpose described. 100

4. A car-door bracket consisting of an angular casting having perforations to receive securing-bolts, a horizontal surface to support a sliding door and a vertical flange, and projecting from its face a perforated lug, and pivoted at one end of said bracket a latch having its free end hooked and perforated and adapted to engage the lug in the bracket, substantially as and for the purpose described. 115

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

ISAAC H. CONGDON.

Witnesses:

JOSEPH R. CLARKSON,
ISAAC E. CONGDON.