

A. H. LEHMANN.
CAR DOOR FASTENER.
APPLICATION FILED JULY 6, 1908.

984,485.

Patented Feb. 14, 1911.

2 SHEETS—SHEET 1.

Fig. 1.

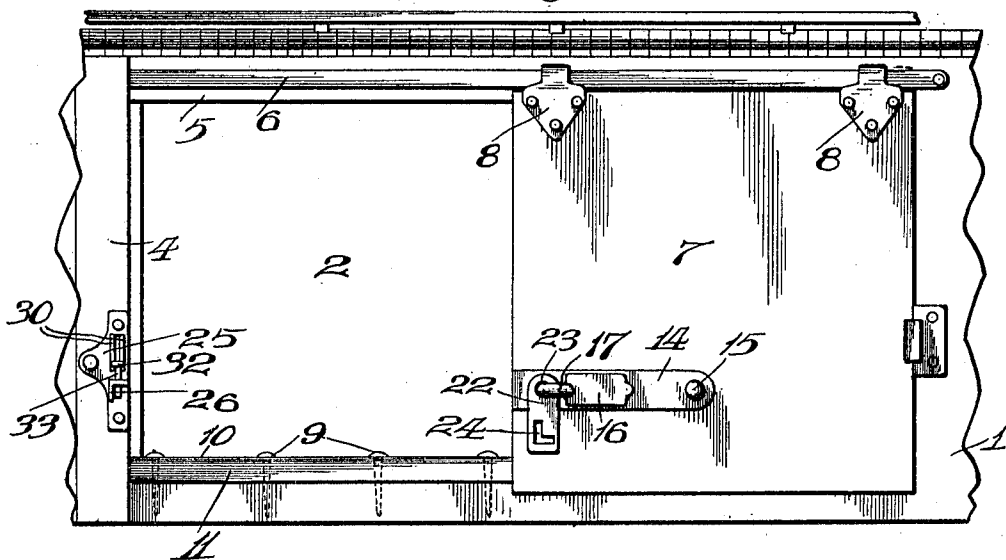


Fig. 2.

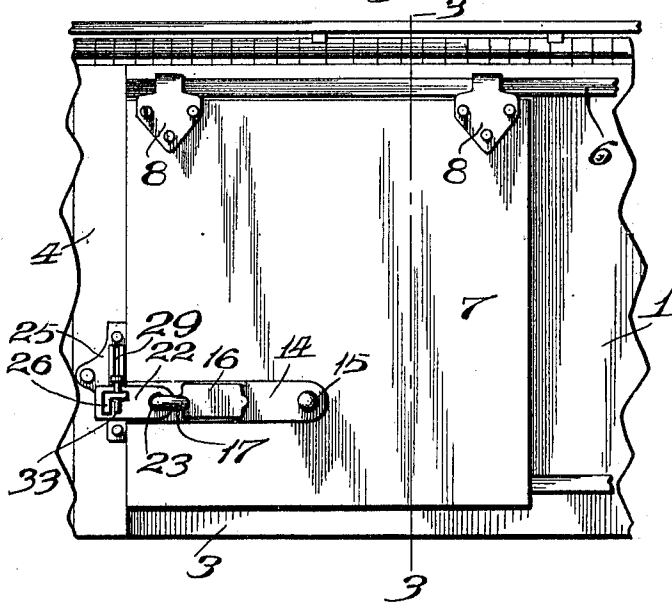
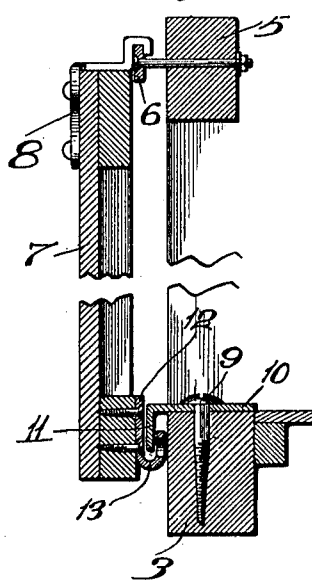


Fig. 3.



Attest.
L. G. Pletcher
W. O. Smith

Inventor.
ALFRED H. LEHMANN.
By Kipdon & Langman,
Attys.

A. H. LEHMANN.
CAR DOOR FASTENER.
APPLICATION FILED JULY 6, 1908.

984,485.

Patented Feb. 14, 1911.

2 SHEETS-SHEET 2.

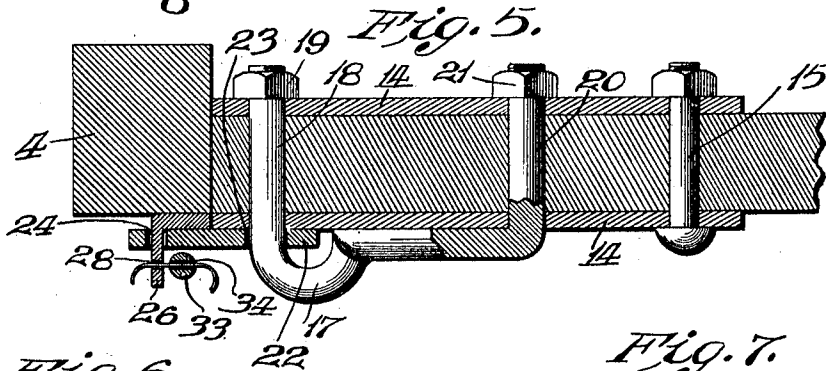
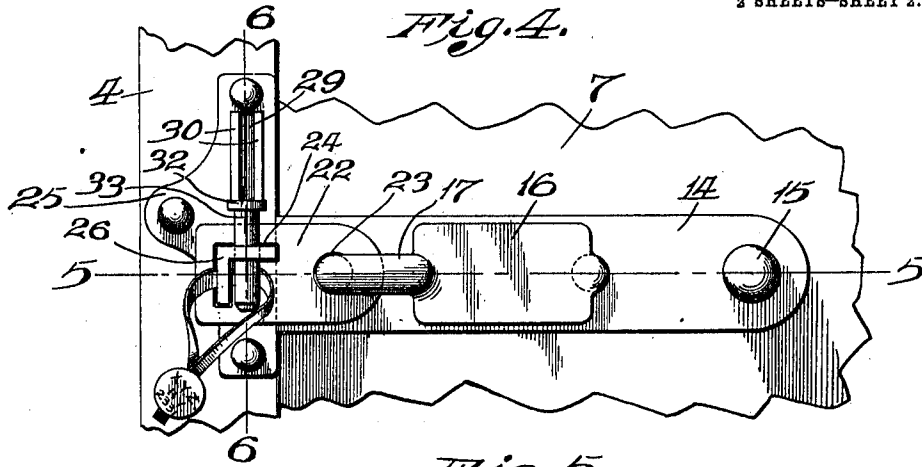


Fig. 6.

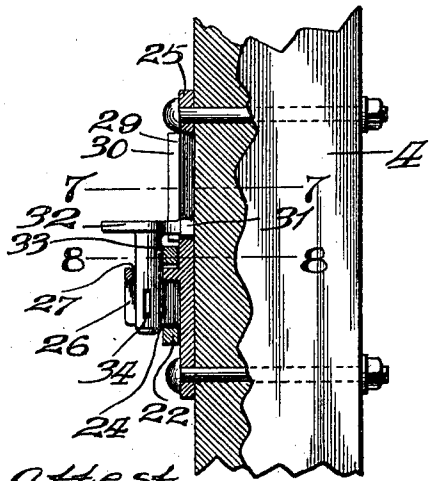


Fig. 7.

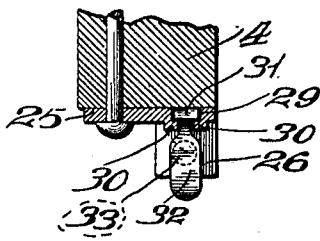
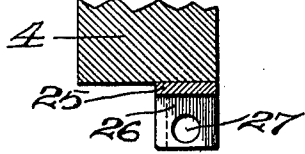


Fig. 8.



Attest.
H. G. Fletcher.
W. O. Smith

Inventor.
ALFRED H. LEHMANN.
By Higdon & Trueman,
Attys.

UNITED STATES PATENT OFFICE.

ALFRED H. LEHMANN, OF ST. LOUIS, MISSOURI.

CAR-DOOR FASTENER.

984,485.

Specification of Letters Patent.

Patented Feb. 14, 1911.

Application filed July 6, 1908. Serial No. 442,039.

To all whom it may concern:

Be it known that I, ALFRED H. LEHMANN, a citizen of the United States, and resident of St. Louis, Missouri, have invented certain new and useful Improvements in Car-Door Fasteners, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to car door fasteners, and consists in the novel construction hereinafter described and claimed.

Figure 1 is an elevation of the central portion of a freight car equipped with my improved door, said door being open; Fig. 2 is an elevation of the central portion of the freight car, and showing the door thereof in closed position; Fig. 3 is an enlarged vertical section taken on the line 3—3 of Fig. 2; Fig. 4 is an elevation of the hasp and lock used on my improved door; Fig. 5 is a horizontal section taken on the line 5—5 of Fig. 4; Fig. 6 is a vertical section taken on the line 6—6 of Fig. 4; Fig. 7 is a detail view taken on the line 7—7 of Fig. 6; Fig. 8 is a detail view taken on the line 8—8 of Fig. 6.

Referring by numerals to the accompanying drawings:—1 designates the car body, 2 the usual door opening formed in the side thereof, 3 the side sill, which performs the function of a door sill, 4 the door post, and 5 the lintel of the door frame.

Arranged immediately in front of the top sill 5 and supported thereby in any suitable manner is a rail 6, which extends a considerable distance to the right of the door opening 2, and which rail forms a track for the car door. The body of the car door 7 is constructed in the usual manner in the form of a rectangular panel, of sufficient size to close the door opening 2; and fixed to the top of the door, adjacent its corners, are hangers 8, which engage over and slide upon the rail 6.

Fixed on top of the sill 3, by means of screws or bolts 9, is a plate 10, with the front edge of which is formed integral a depending flange or rail 11, which occupies a position a short distance in front of the sill 3; and this flange or rail is extended a suitable distance to the right of the door opening 2.

Rigidly fixed in any suitable manner to the inside face of the door, and adjacent the lower edge thereof, is a plate 12, the lower portion of which is bent into U-shape, as

designated by 13; and said U-shaped portion engages the flange or rail 11, as shown in Fig. 3.

14 designates a pair of horizontally disposed plates, which are positioned against the outer and inner faces of the door 7, adjacent the edge which closes against the door posts 4; and passing through the right hand ends of said plates and through the door 7 is a bolt 15, the nut thereon being located on the inside of the door.

16 designates a small plate, which is positioned against the outside plate 14; and formed integral with one end of this plate 16 is a semicircular loop 17, which performs the function of a staple, and integral with said loop is a shank or pin 18, which passes through the plates 14 and through the door 7; and located on the inner end of said shank is a nut 19. Formed integral with the opposite end of the plate 16 is a pin 20, which passes through the plates 14 and door 7; and located on the inner end of this pin 20 is a nut 21.

22 designates a hasp, one end of which is provided with an aperture 23 whereby said hasp is suspended from the loop 17; and formed through the opposite end of this hasp is an L-shaped aperture 24.

Fixed in any suitable manner to the outer face of the door post 4, in alinement with the plates 14, is a plate 25, with which is formed integral a forwardly projecting inverted L-shaped lug 26, through the horizontal flange of which is formed an aperture 27; and formed through the vertical flange of said lug is an aperture 28.

Formed in the upper portion of the plate 25 is a vertically disposed slot 29, and formed integral with the plate at the sides of this slot 29 are retaining flanges 30. Arranged to slide vertically in the slot 29, behind the flanges 30, is a block 31, with which is formed integral a forwardly projecting finger 32, with which is formed integral a depending pin 33, in the lower portion of which is formed an aperture 34.

When a door of my improved construction is opened or closed, the hangers 8 travel along the rail 6, and the U-shaped lower portion 13 of the plate 12 engages the flange or rail 11; and thus the door is held in position to close the door opening. Or, when said door is open, it lies immediately against the side of the car, to the right of the door open-

ing, as shown in Fig. 1. The door is locked and sealed when closed by moving the hasp 22 into a horizontal position, and manipulating the same so that the inverted L-shaped lug projects through the opening 24; and the finger 32 is now moved downward until the pin 33 passes through the opening 27, thus effectually locking the hasp, and the parts are now sealed by passing a sealing strip or wire through the coinciding apertures 28 and 34; and the ends of said strip or wire being united by a suitable seal.

The function of the L-shaped aperture 24 in the hasp is to permit the L-shaped lug 26 to project through said aperture, so that the hasp may lie snugly against the adjoining parts. Said L-shaped aperture also assists in preventing vertical and horizontal movements of the hasp, the semicircular loop 17 effectually preventing the horizontal and vertical movements of the inner end of the said hasp.

When my improved door is closed, the lower portion of said door cannot be pried outward owing to the engagement of the U-shaped lower portion 13 of the plate 12 with the flange 11; and as these parts are on the inside of the door and completely inclosed, they cannot be detached from the car or door by the removal of the fastening screws, or bolts. The nuts on the bolt 15 and pins 18 and 20 are on the inside of the door and

therefore the hasp cannot be removed while the door is closed.

A car door of my improved construction is simple and inexpensive, is provided with simple, efficient locking means, and when closed, locked, and sealed, cannot be opened without breaking the seal.

I claim:—

The improved door for cars, comprising the door, the door post, a suitable hasp carried by the said door and provided with an L-shaped aperture 24; a plate 25 fixed to the door post and having integral with its outer face the projecting inverted L-shaped lug 26 the horizontal flange of which is provided with an aperture 27, and the vertical flange of which has an aperture 28, said plate 25 having a vertical slot 29 in its upper part above said inverted L-shaped lug, retaining flanges 30 at the sides of said slot, and the pin 33 having the integral block 31 and projecting finger 32, said pin having also a seal aperture in its lower portion normally opposite said aperture in the vertical flange of said inverted L-shaped lug 26.

In testimony whereof, I have signed my name to this specification, in presence of two subscribing witnesses.

ALFRED H. LEHMANN.

Witnesses:

M. P. SMITH,
E. L. WALLACE.