(No Model.)

T. HOADLEY.

GRAIN DOOR ATTACHMENT FOR RAILROAD CARS.

No. 341,910. Patented May 18, 1886.

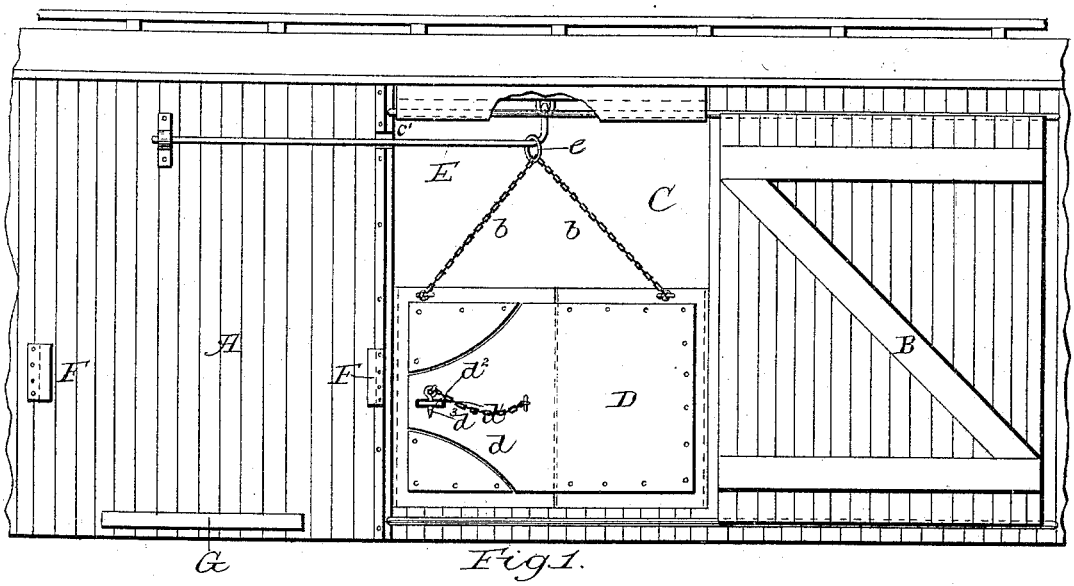


Fig. 1.

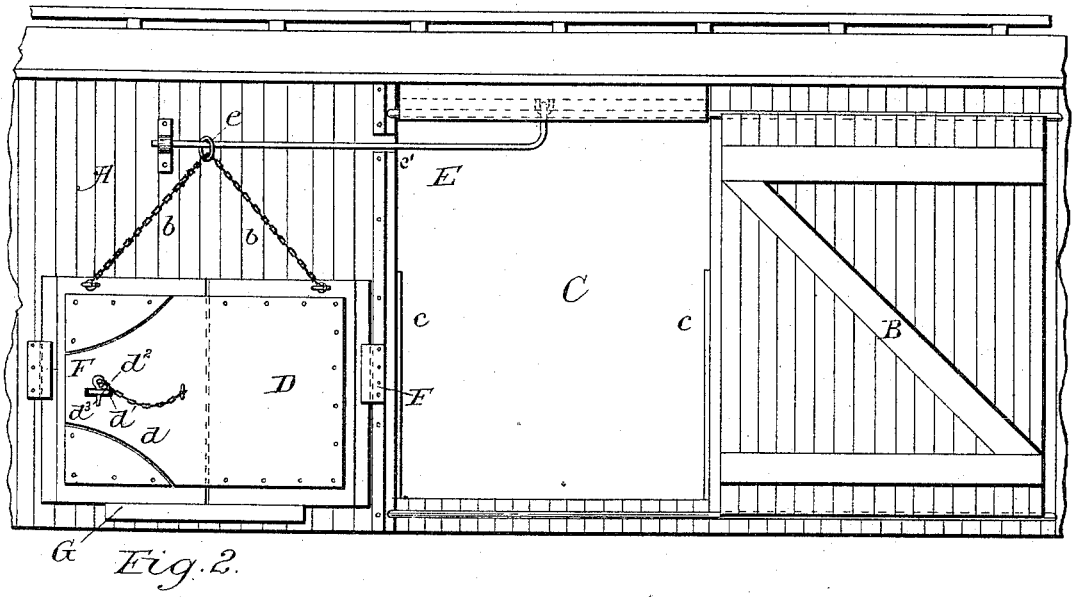
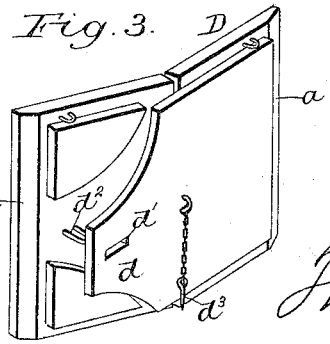


Fig. 2.

Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

THOMAS HOADLEY, OF DUNCAN, ILLINOIS.

GRAIN-DOOR ATTACHMENT FOR RAILROAD-CARS.

SPECIFICATION forming part of Letters Patent No. 341,910, dated May 18, 1886.

Application filed December 9, 1885. Serial No. 185,186. (No model.)

To all whom it may concern:

Be it known that I, THOMAS HOADLEY, a citizen of the United States, residing at Duncan, in the county of Stark and State of Illinois, have invented a new and useful Grain-Door Attachment for Railroad-Cars, of which the following is a specification.

My invention relates to improvements in grain-doors for box-cars, which are constructed in the form of a hinge, to afford a capability of their withdrawal from the doorway of the car outwardly; and the objects of my improvements are, first, to provide for carrying the door, when not in use, upon the outside of the wall of the car; second, to provide a door that is not detached from the car in the act of transferring it from the doorway to the outer wall of the car; and, third, to provide a door sufficient in height to meet the requirements in the shipment of lighter grains in the bulk. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side view of the side of a car from the outside, in which the outside door is pushed back or open, showing my grain-door when in use. Fig. 2 is a similar view showing my door when out of use and placed upon the outside of the wall of the car. Fig. 3 is a detached view of the outside of my door when turned upon its hinge to admit of its withdrawal from the doorway of the car.

Similar letters refer to similar parts throughout the several views.

A A is the side of a box-car; B, the outer door, arranged to slide upon the wall of the car on its outside; C, the doorway, showing the shoes *c c*, which receive the ends of the grain-door, all of which I use to enable me more fully to show the construction, attachment, and operation of my invention.

D is my grain-door, hinged at or near its vertical center, having the lever *d*, with its slot *d'*, firmly attached to the outer surface of one of its hinged ends, and having the loop d^2 on the outer surface of its other hinged end, and adapted to the slot *d'* in the end of the lever, and also adapted to receive the key d^3, which is suspended to the door, and by which the lever is firmly held upon its outside surface when in use.

b b are chains or rods attached to or near to the top of the door, and in turn to the ring *e*, to secure its attachment to the car. The extreme ends of the door D are adapted to the shoes or slots *c c*.

When the key d^3 is withdrawn, the pressure of the grain upon the door causes it to fold upon its hinge, and in so doing its extreme ends *a a* are withdrawn outwardly from the shoes or slots *c c*, and the lever *d* stands outwardly from the line of the opposite hinged end of the door. By a reversed series of motions the door is again placed in position for use, or at rest upon the outside of the wall of the car.

It is evident that, instead of being hinged, the door might be constructed with one of its ends, or both, adjustable; or one of the shoes, or both, might be hinged, to be capable of turning back to receive the end of the door.

The details of the construction of the door may vary largely without changing its adaptation to the use of my invention.

E is the rod or bail, one of its ends being attached to the under side of the lintel of the doorway, and its other end attached to the outside of the car, with slotted holder at a point holding it level, these attachments giving it a capability of swinging outward to allow the ring *e*, to which the ends of the chain or rod *b b* are attached, to pass around the jamb of the doorway. It will be seen that the bail might be fixed stationary, and the outside door, B, be recessed, that it may close over it. The bail E is bent in two angles to enable it to pass around the jamb *c' c'*, which is recessed to receive it, to allow the outside door to pass over it in closing.

F F are shoes or slots placed on the outside of the wall of the car to receive the ends of the door when not in use; and G is a projection upon which the edge of the door rests.

When the grain-door is withdrawn from the doorway and removed to the wall of the car, as shown, the ring *e* slides along the bail and around the jamb to its position, while the bail swings outward.

What I claim as new, and desire to secure by Letters Patent, is—

1. A hinged door adapted at its ends to shoes or slots which are attached to the car, in com-

bination with the swinging bail E, arranged between the interior and exterior of the car, and connection to suspend the door therefrom, as set forth.

2. The swinging bail E, in combination with a railroad box-car and a grain-door, and connections whereby the door may be swung against the outside wall of the car when not in use, said bail E having its inner upward end swiveled on the inside of the car and the opposite end secured loosely to the outside of the car to the slotted holder, as set forth.

3. The hinged door D, with its slotted lever *d*, its loop d^2, its key d^3, its extreme ends *a a*, adapted to the shoes *c c*, and its chains or rods *b b*, combined with the bail E, substantially as and for the purpose hereinbefore set forth.

THOMAS HOADLEY.

Witnesses:
THOS. C. THOMAS,
MACK OBERLENDER.