

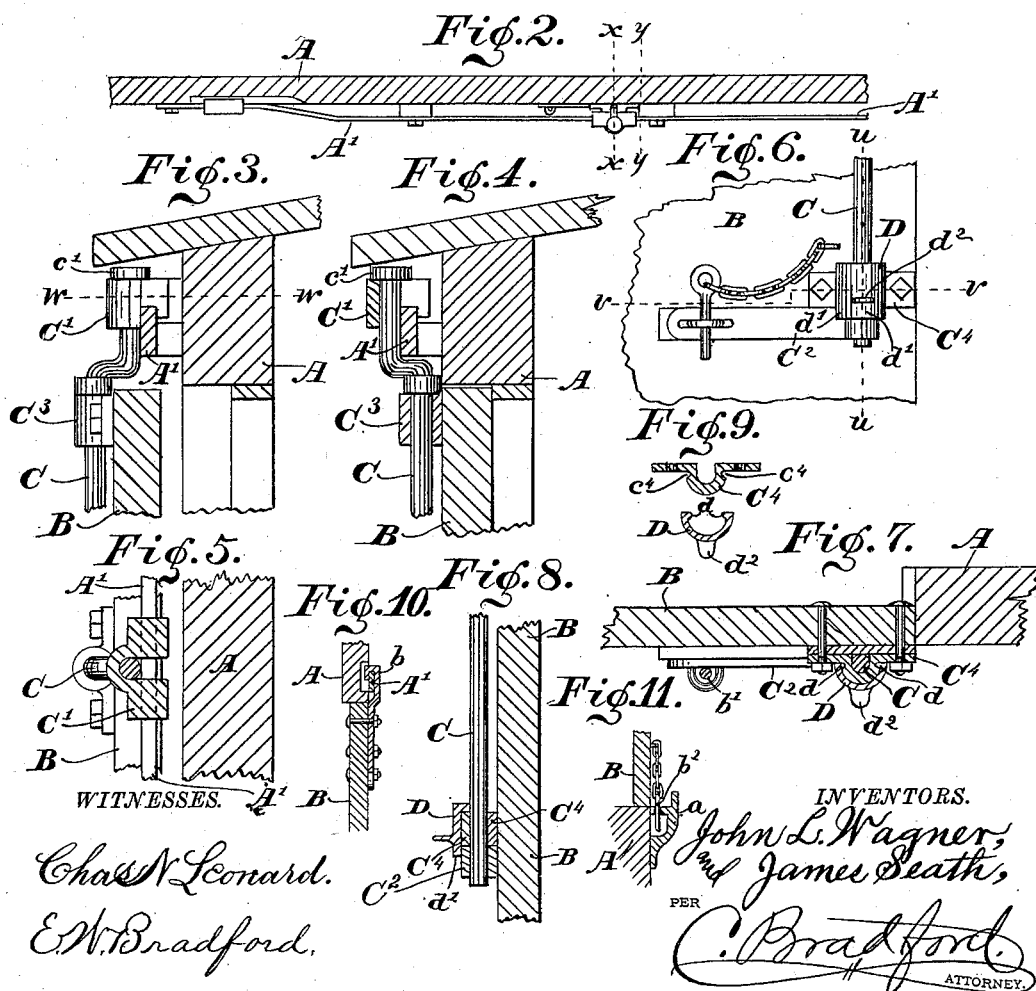
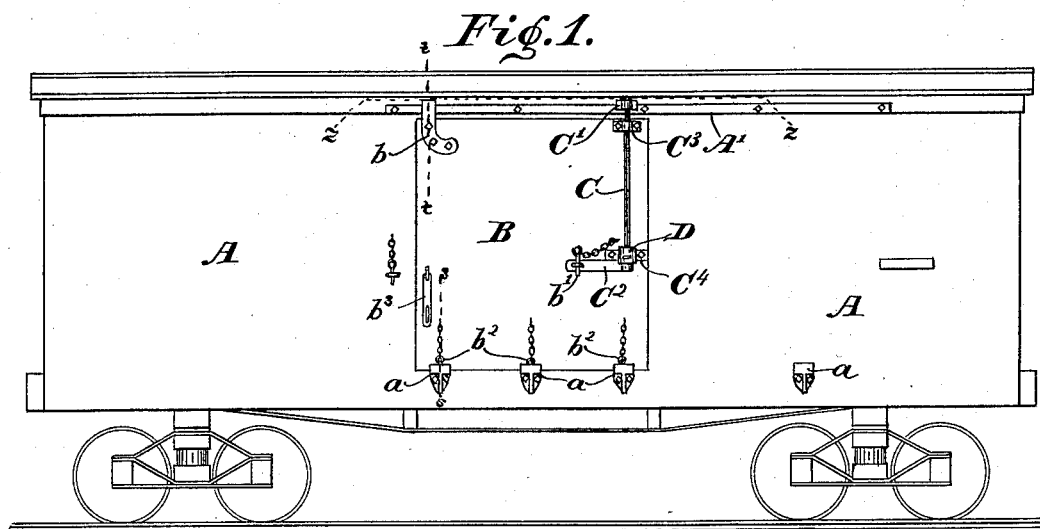
(No Model.)

J. L. WAGNER & J. SEATH.

CAR DOOR.

No. 305,361.

Patented Sept. 16, 1884.



UNITED STATES PATENT OFFICE.

JOHN L. WAGNER AND JAMES SEATH, OF TERRE HAUTE, INDIANA, ASSIGNORS TO THEMSELVES, ROBERT S. COX, OF SAME PLACE, THOMPKINS A. LEWIS, OF INDIANAPOLIS, INDIANA, AND HENRY R. DUVALL, OF NEW YORK, N. Y.

CAR-DOOR.

SPECIFICATION forming part of Letters Patent No. 305,361, dated September 16, 1884.

Application filed June 20, 1884. (No model.)

To all whom it may concern:

Be it known that we, JOHN L. WAGNER and JAMES SEATH, of the city of Terre Haute, county of Vigo, and State of Indiana, have invented certain new and useful Improvements in Car-Doors, of which the following is a specification.

It is often desirable, in the construction of freight-cars, that the door be mounted on or suspended from a single rail secured to the body of the car at or above the top of the door.

Our present invention principally consists in such a construction and arrangement of parts that a door substantially like that described in Letters Patent No. 280,537, dated July 3, A. D. 1883, may be so mounted.

It further consists in a locking device for securing the crank-rod by which the doors are operated in position.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a side elevation of a car the door of which is provided with our invention; Fig. 2, a view looking downwardly from the dotted line *z z*; Fig. 3, a detail sectional view looking to the left from the dotted line *y y* in Fig. 2; Fig. 4, a similar view looking from the dotted line *x x* in Fig. 2; Fig. 5, a horizontal sectional view looking downwardly from the dotted line *w w* in Fig. 3; Fig. 6, a detail elevation showing the fastening device on an enlarged scale; Fig. 7, a horizontal sectional view looking downwardly from the dotted line *v v* in Fig. 6; Fig. 8, a vertical sectional view looking to the left from the dotted line *u u* in Fig. 6; Fig. 9, a view of a portion of Fig. 7, the parts being separated; Fig. 10, a detail section on the dotted line *t t* in Fig. 1, and Fig. 11 a detail section on the dotted line *s s* in Fig. 1.

In said drawings, the portions marked A represent the body of the car, B the door, C the operating-shaft, and D the locking device.

The car-body A is an ordinary box-car, having the usual door-openings, the door-supporting rail A', and door-holding brackets *a*, the latter of which have small holes drilled to

receive pins for fastening the door tightly in closed position. The rail A' is bent inwardly at one end, to draw the front side of the door into the jamb as said door is closed, as described in the aforementioned Letters Patent.

The door B is provided with a hanger, *b*, at the front upper corner, which hooks over the rail A' in the ordinary manner, and is supported at the other corner by a hanger attached to the rod C, as will be presently described. A pin, *b'*, is provided with which to fasten the lever which operates the crank-rod, and also pins *b''*, which are adapted to enter the holes in the brackets *a*, and thus hold the bottom of the door tightly into its jamb. The door may also be provided with a hasp, *b''*, or other means of locking or fastening, if desired.

The crank-rod C is journaled in bearings C¹, secured to the door B, and passes up through and is suspended to the hanger C', which rests on the rail A', the head or nut *c* thereon serving to secure it to said hanger. It is also provided with the usual handle, C², by which it is operated. The hanger C' is preferably a casting, notched in one side to receive the shaft C, (see especially Fig. 5,) and grooved on its under side, (see Figs. 3 and 4,) to hook over the rail A'. By reason of this formation the several parts are adapted to be easily and quickly placed in position, as will be readily understood.

The locking device D passes over and is secured to bearing C⁴ by tongues *d*, which enter grooves *c'* in said bearing, as shown. It is provided with an overhanging lip, *d'*, which is adapted to pass over the upper edge of the handle C², as shown most plainly in Figs. 6 and 8, and thus hold said handle in position alongside said door when desired. A projection, *d''*, is preferably formed on the outer surface of the device D, to serve as a handle in raising it out of engagement with the handle C².

Having thus fully described our said invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination of a car-door, a single rail from which it is suspended, a crank-rod, C, secured to said door, and a hanger, C', rest-

ing on said rail, said rod passing up through said hanger, and having a head or enlargement, c' , which rests thereon, whereby said rod and the side of said door to which it is attached are suspended through said hanger to said rail, substantially as set forth.

2. The combination of the car, the rail A' , the brackets a , the door B , the crank-rod C , and the hangers b and C' , substantially as set forth.

3. The combination, with the door B , suspended on hangers b and C' , the latter of which is attached to crank-rod C , of brackets a and pins b^2 , substantially as shown and specified.

4. The combination, with a crank-rod for operating a car-door, of a locking device, D , formed to engage with the bearing for said rod

and with the handle thereof, substantially as set forth.

5. The combination of the door, the crank-rod C therefor, having handle C^2 , the bearing C^4 , provided with grooves c^4 , and the locking device D , having tongues d , and an overhanging lip, d' , substantially as described, and for the purposes specified.

In witness whereof we have hereunto set our hands and seals, at Indianapolis, Indiana, this 16th day of June, A. D. 1884.

JOHN L. WAGNER. [L. S.]
JAS. SEATH. [I. S.]

In presence of—

C. BRADFORD,
CHAS. L. THURBER.