(No Model.)

T. L. WILSON.

RAILROAD CAR.

No. 282,827. Patented Aug. 7, 1883.

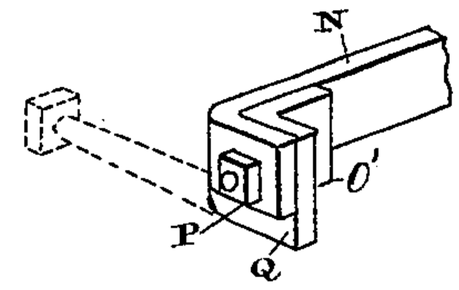

Fig. 4.

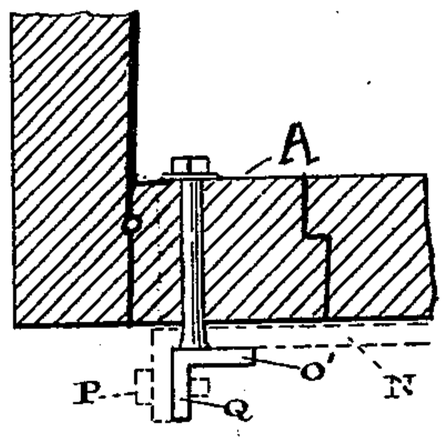

Fig. 5.

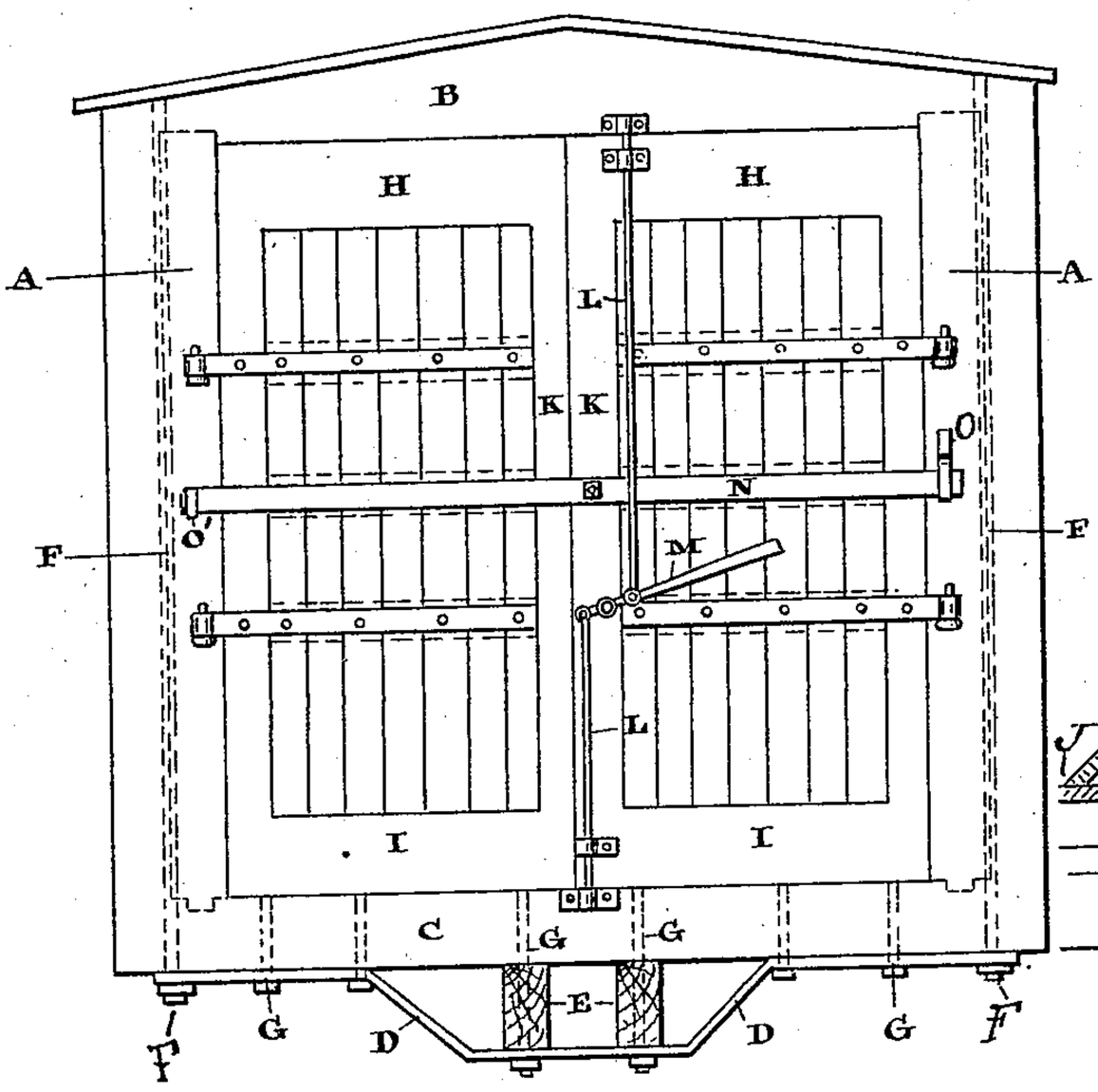

Fig. 1.

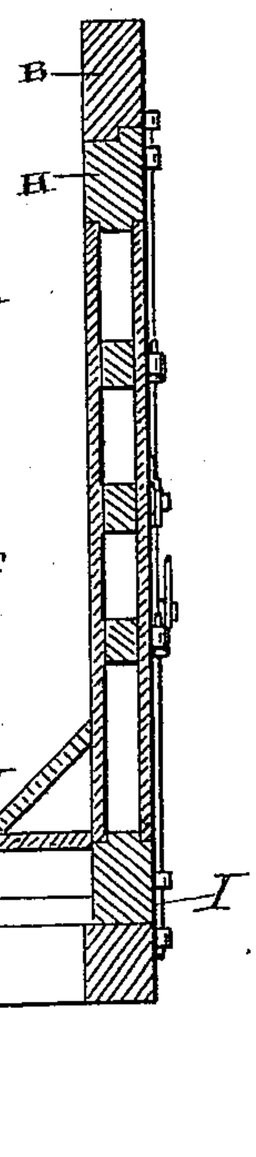

Fig. 2.

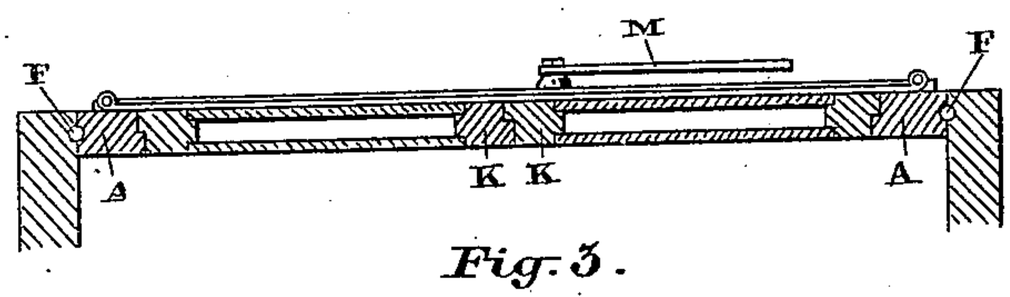

Fig. 3.

Witnesses.

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UNITED STATES PATENT OFFICE.

THOMAS L. WILSON, OF PORT HOPE, ASSIGNOR OF ONE-HALF TO EUGENE HARMON DAVIS, OF TORONTO, ONTARIO, CANADA.

RAILROAD-CAR.

SPECIFICATION forming part of Letters Patent No. 282,827, dated August 7, 1883.

Application filed January 22, 1883. (No model.)

To all whom it may concern:

Be it known that I, THOMAS LAVERICK WILSON, a subject of the Queen of Great Britain, residing at the town of Port Hope, in the county of Durham, in the Province of Ontario, Dominion of Canada, have invented certain new and useful Improvements in Railroad-Cars, of which the following is a specification.

The object of the invention is to so construct the body of a box-car that carriages and other large articles may be put into it without being taken apart; and it consists, essentially, in removing a number of studs at one end of the car and making an opening sufficiently large to admit a carriage and pair of horses, the end of the car being so constructed and stayed that the removal of the studs will not weaken the frame of the car, double doors being provided to close the aperture, which doors are strongly constructed and provided with suitable bolts and bars for securing them when closed.

In the drawings, Figure 1 is an end view of a car constructed in accordance with my invention. Fig. 2 is a sectional elevation of the end. Fig. 3 is a sectional plan of the end. Figs. 4 and 5 are enlarged details, showing the manner of locking the bar N.

As the removal of the studs at the back of the car would weaken the structure, it is important that means should be provided for strengthening and staying that portion of the body which would be weakened by the removal of the studs. With that view I place the posts A at the end of the car near the studs, mortising the said posts into the roof-rail B and into the head-stock C. These posts are shown in dotted lines in Fig. 1, and may also be seen in Fig. 3.

With the view of strengthening and bracing together the end of the car, I place a truss-strap, D, about an inch thick by three inches wide. This truss-strap D is bolted to the bottom of the head-stock and extends below the draw-head timbers E. Each end of this truss-strap is secured by a bolt, F, which extends from the bottom of the head-stock C to the top of the roof-rail B. Bolts G, extending through the strap and head-stock, and also through the draw-bar timbers, as shown by dotted lines, still further secure the truss-strap in position.

The posts A, it will be seen, form the jambs of the doors. These doors have a heavy top rail, H, which is rabbeted, as shown in Fig. 2, into the roof-rail B. The doors are also rabbeted into the side posts, A. The bottom rail, I, of the doors rests upon the top of the head-stock, which is considerably below the line of the flooring J.

As shown in Fig. 3, the center stiles, K, of the doors are rabbeted, so as to overlap each other. It will thus be seen that when the doors are closed complete joints are made at all points of connection, which enables the car to be used for carrying grain or merchandise of any description. With the view of securely locking the doors thus closed, I provide the vertical bolts L, one designed to fit into a clasp secured to the head-stock C, while the other bolt fits into a clasp attached to the roof-rail B.

The inner ends of both bolts L are connected to a lever, M, which is pivoted upon one-half of the doors, as shown. It will thus be seen that the bolts L can be forced into their clasps and easily withdrawn by the action of the lever M.

With the view of still further securing the doors when closed, I provide a pivoted cross-bar, N, the ends of which fit into clasps O O′, bolted securely the side posts, A. For the purpose of locking this cross-bar N securely in position I form the clasp O′ of L shape, as shown in Fig. 4, one arm, Q, of the clasp being extended at right angles to the face of the post A, through which arm a bolt-hole is made. This clasp has firmly secured to it a bolt, (shown in dotted lines in Fig. 4,) which passes through the post A, and is so constructed and arranged as to hold the clasp O′ at a suitable distance from said post to allow of the cross-bar N passing between the clasp and the face of the post. The end of the bar N is bent around to be parallel with the projecting piece Q, so that the bolt P will go through both of them. By this arrangement the end doors can be securely locked when it is not desired that they should be open.

From this description it will be seen that a car provided with end doors, as described, may be used for every description of merchandise, and also large articles may be put into it without being taken apart. The car is of course provided with the ordinary side doors, which are used except when large articles—such as before mentioned—are to be put into the car.

I do not claim anything particular in the construction of the car, except in the points I have named.

What I claim as my invention is—

1. In a railroad box-car having the end studs removed, the posts A, mortised into the roof-rail B, and head-stock C, in combination with the truss-strap D and bolts F and G, substantially as and for the purpose specified.

2. The combination, with the pivoted cross-bar N, having an angular end, of the clasp O′, provided with a projecting piece, Q, and bolt P, passing through both clasp and bar, substantially as described.

Toronto, December 28, 1882.

THOS. L. WILSON.

In presence of—

CHAS. C. BALDWIN,

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