

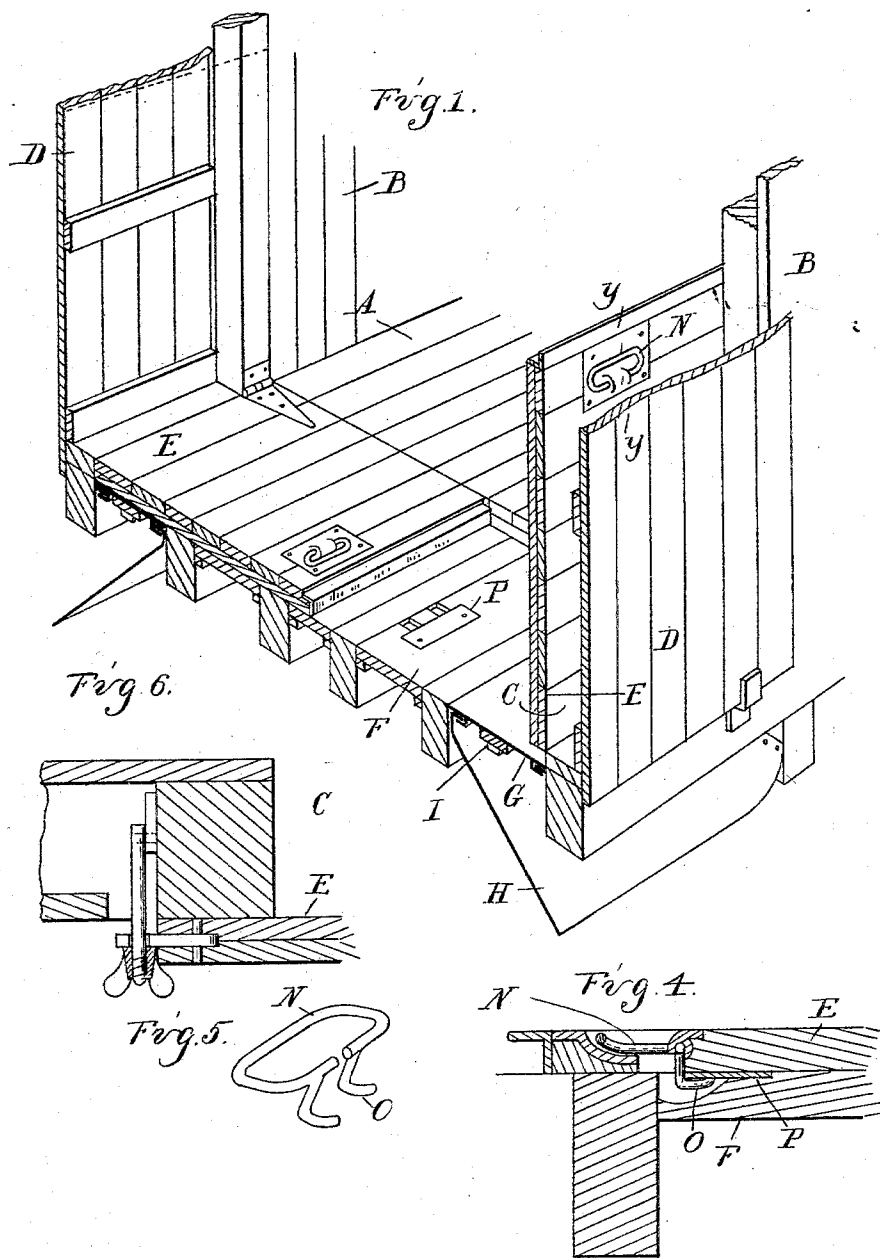
(No Model.)

2 Sheets—Sheet 1.

J. CARR.
FREIGHT CAR.

No. 556,960.

Patented Mar. 24, 1896.



Witnesses
A. F. Bantley
M. B. Bantley

Inventor
John Carr
By *W. D. Spurgeon* Attys.

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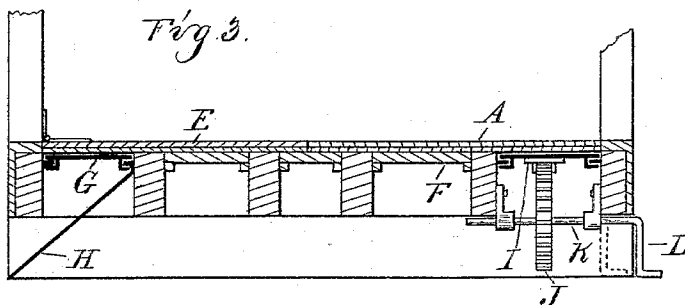
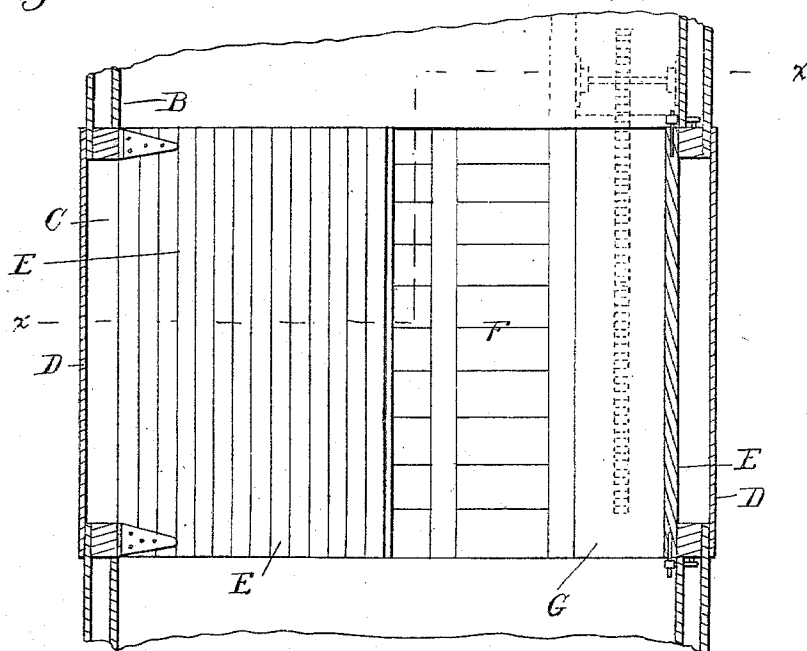


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN CARR, OF DETROIT, MICHIGAN.

FREIGHT-CAR.

SPECIFICATION forming part of Letters Patent No. 556,960, dated March 24, 1896.

Application filed May 16, 1895. Serial No. 549,464. (No model.)

To all whom it may concern:

Be it known that I, JOHN CARR, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Freight-Cars, of which the following is a specification, reference being had therein to the accompanying drawings.

The object of this invention is to provide
10 freight-cars with suitable means to serve, in addition to their ordinary use as freight-cars, as cars adapted for carrying grain and other material in bulk; and to this end the invention consists in the arrangement and construction
15 of supplemental doors, which when not in use can be swung out of the way, and, further, in means for discharging the freight, such as grain, by means of convenient spouts through the floor of the car, all as more fully
20 hereinafter described.

In the drawings, Figure 1 is a sectional perspective view of a freight-car provided with my improvements. Fig. 2 is a horizontal sectional plan of the central portion of the
25 freight-car. Fig. 3 is a cross-section on line $x x$ in Fig. 2. Fig. 4 is a section on line $y y$ of Fig. 1 with the door in its locked position. Fig. 5 is a detail perspective view of the locking-handle. Fig. 6 is a horizontal section
30 through one of the door-jamb, showing the means for locking the door against the jamb.

A represents the floor, B the sides, C the opening in the sides, and D the ordinary door, all as in the present construction of freight-
35 cars, except as more fully hereinafter described.

E represents two supplemental doors which are adapted to close the lower portion of each door-opening from the inside, these doors extending across the door-opening and resting
40 with their ends against the inside of the door-jamb. They are hinged at their rear ends, and when folded down out of the way form supplemental parts of the car-floor. To this
45 end the ordinary car-flooring is omitted in the center of the car for a suitable width between the doors as required to form a recess for the hinged doors, and a false car-floor is formed below the recess by means of the furring-
50 boards F, which are immediately supported on the sides of the longitudinal car-sleepers in a manner to form a strong and tight floor

capable of supporting a required load. That portion, however, adjacent between the two outside jambs on each side of the door-opening is made in the form of a slide G, so arranged that it may be drawn out of the way to uncover the opening, and below thereof is placed a discharge-spout H, leading to the outside of the car below the sill.

Any suitable means may be employed to actuate the slide. In the drawings there is shown for this purpose a rack-bar I, centrally secured on the under side of the slide and engaging with a gear-wheel J upon the
65 shaft K journaled on the under side of the car-floor. The shaft K is adapted to slide through its bearing and is provided with a crank L for turning it on the outside of the car, all so arranged that when the crank is
70 not in use the shaft may be pushed endwise to bring the crank L out of the way in the position shown in dotted lines in Fig. 3. The doors E are made of suitable thickness to correspond with the thickness of the car-floor, so
75 that when the doors are in the recesses there are no projecting parts above the car-floor, and in order to prevent the possibility of the doors being thrown up by the shaking of the floor I preferably lock them down by means
80 of any suitable device, and preferably I use for this purpose handles N, which are adapted to be folded into recesses in the doors and are provided with hooks O adapted to engage into keepers P, all as shown in Fig. 4, where-
85 by the doors are unlocked by raising the handles N and locked by pushing the handles back into their recesses, and these handles at the same time form convenient means for
90 raising the doors into their upright position against the inside of the opening in the car. Suitable means, such as shown in Fig. 6, are also provided to lock the car-doors against the door-jamb when wanted in this position.

The parts being thus constructed and arranged as described and shown it will be evident that if the doors E are folded into their recesses the car is like any ordinary freight-car, and may be used for carrying ordinary freight. Should it be desired to use
100 it for carrying grain or other like merchandise in bulk, the doors E are swung up against the inside of the door-opening and fastened in position, and when it is desired to unload

the slide G on either side may be drawn out of the way to discharge the grain through the spout H, thus forming a very expeditious means for unloading grain.

5 It will be noticed that my construction is especially adapted for the transformation of ordinary freight-cars into cars of my construction.

10 I am aware that it is not broadly new to provide supplemental doors for freight-cars hinged to the floor and adapted to be concealed in recesses of the car-floor; but

What I claim as my invention is—

15 1. In a freight-car, the combination with the floor having an opening therein, of a sliding door for said opening, movable longitudinally of the car, a toothed rack secured on the under face thereof, a pinion for operating said door, supported under the car-body, and

an operating-handle for said pinion, movable transversely of the car, substantially as described.

2. The combination with a door-opening formed in one side of the car, of a swinging car-door hinged adjacent to the door-opening 25 and forming a movable section of the car-floor a false floor below said movable section, the handle N recessed in said movable section and provided with hooks O and a keeper in the false floor adapted to interlock with 30 said hooks, substantially as described.

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

JOHN CARR.

Witnesses:

M. B. O'DOHERTY,
O. F. BARTHEL.