

(No Model.)

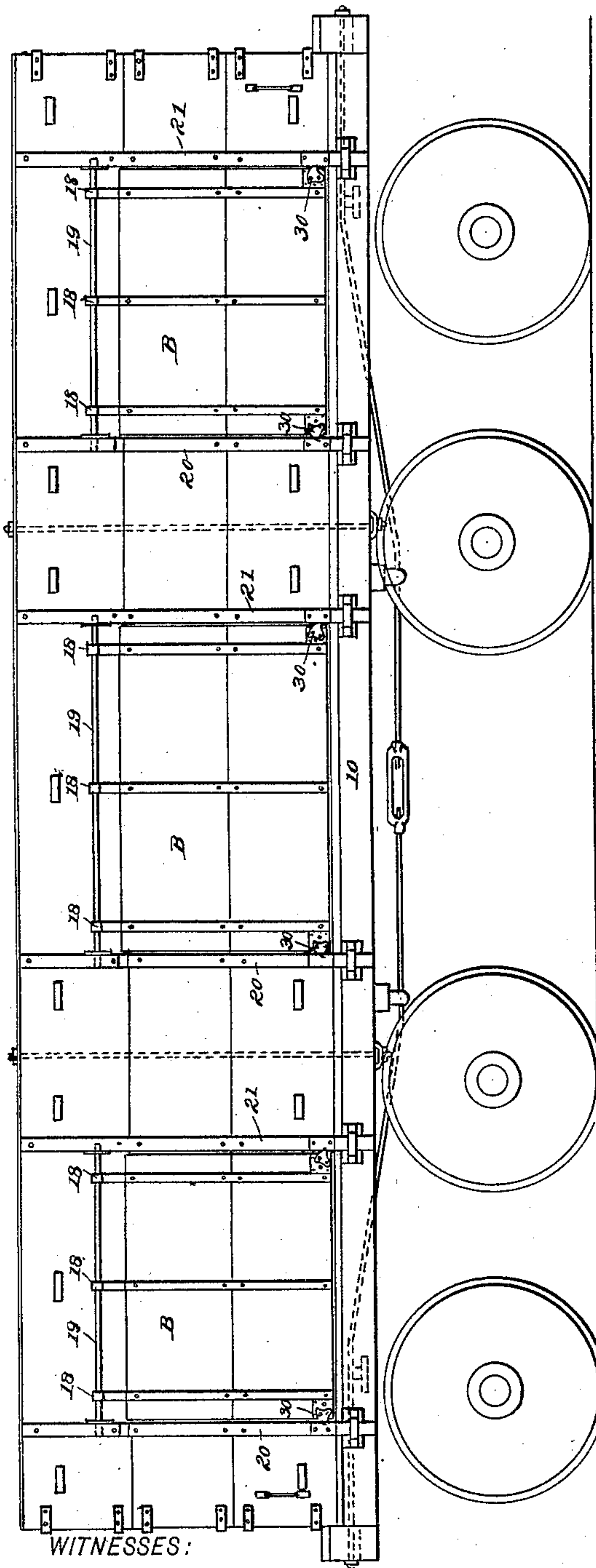
2 Sheets—Sheet 1.

T. WATKINS.
GONDOLA CAR.

No. 427,938.

Patented May 13, 1890.

Fig. 1.



WITNESSES:

J. A. Griswold
C. Sedgwick

Fig. 2.

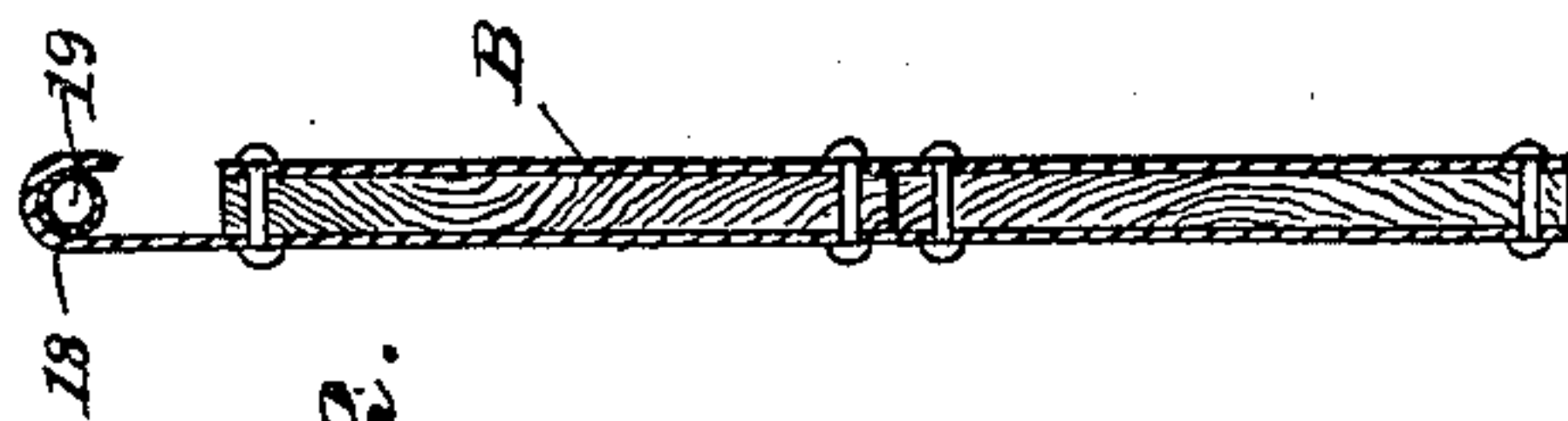
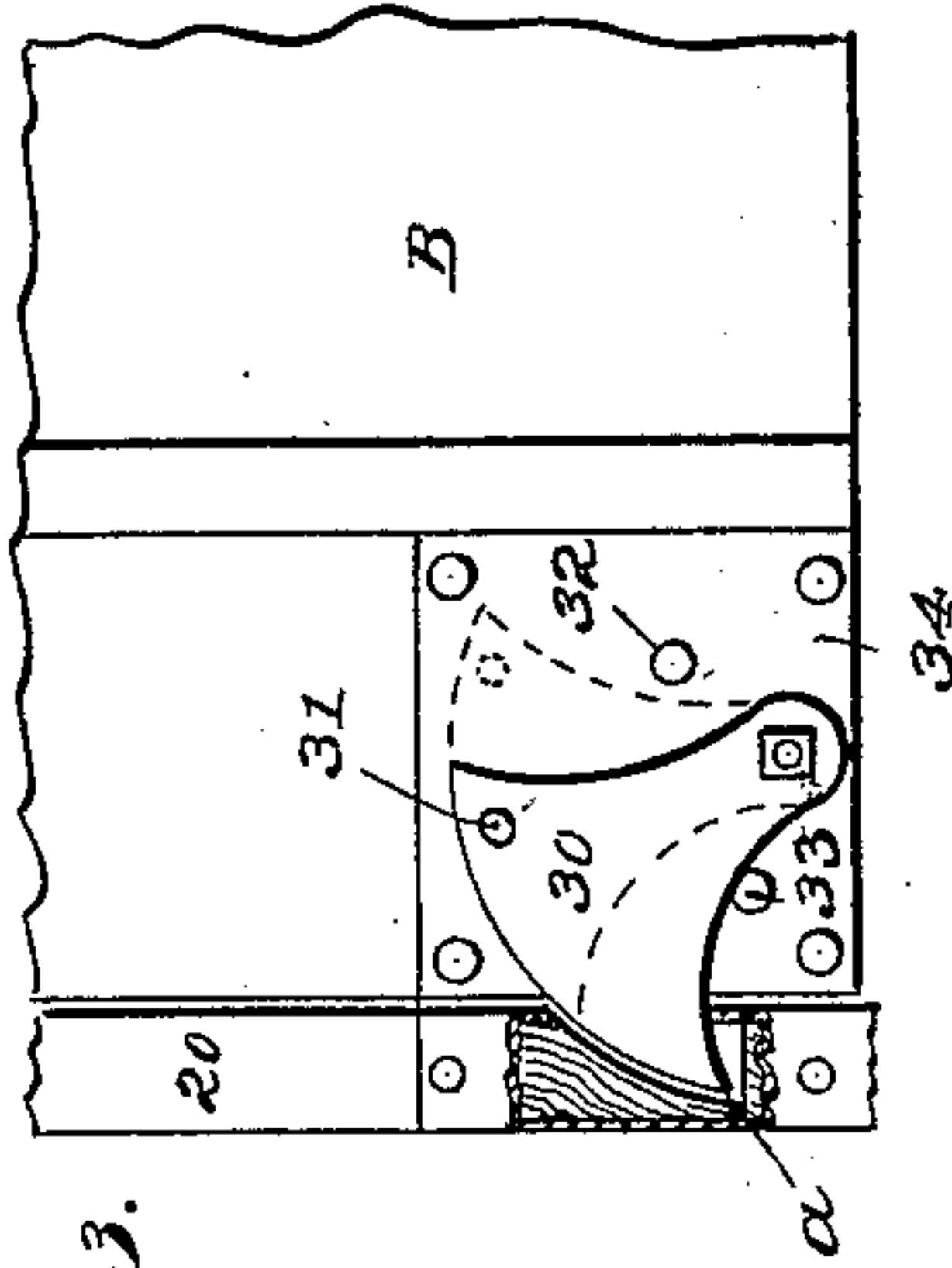


Fig. 3.



INVENTOR:

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Fig. 4.

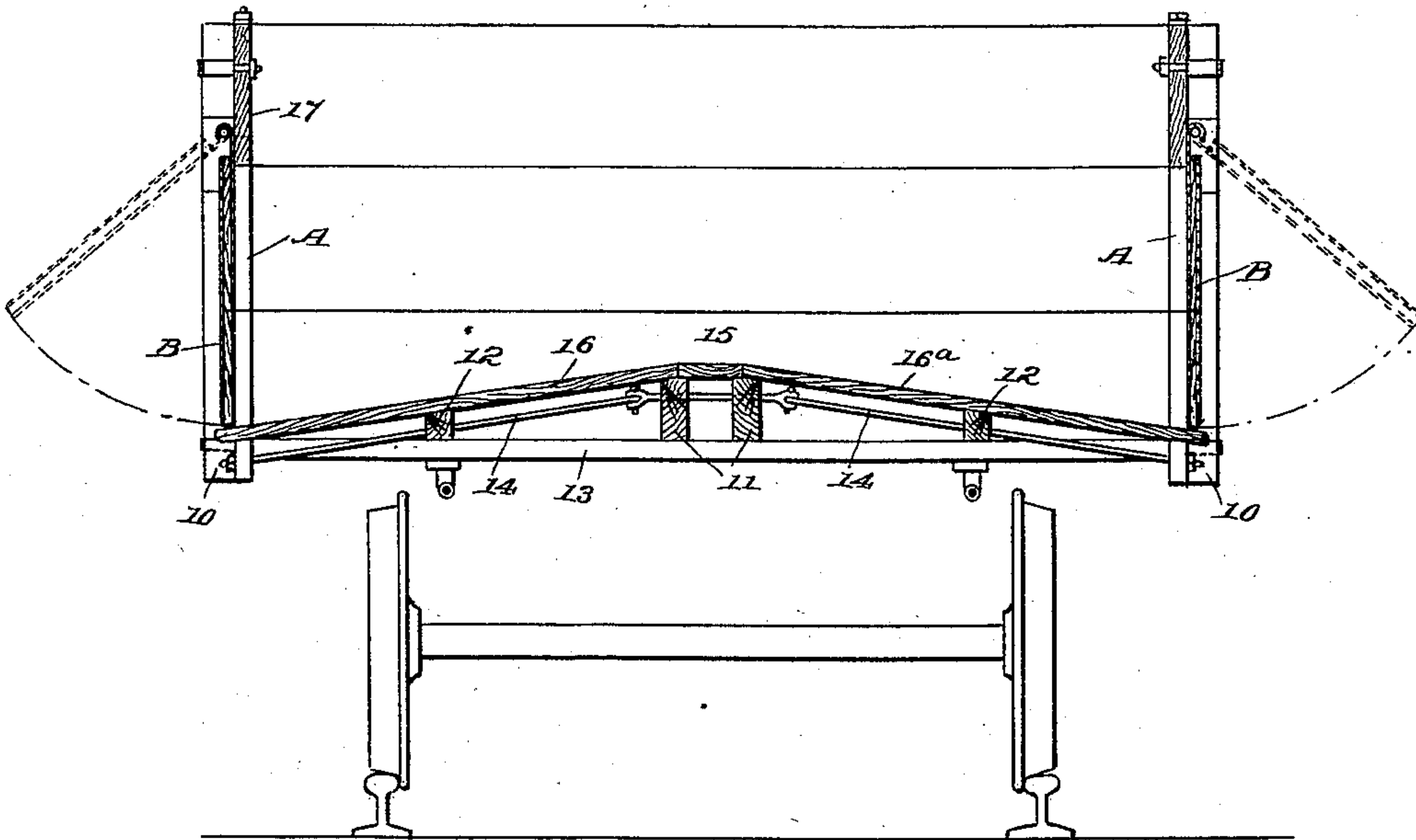
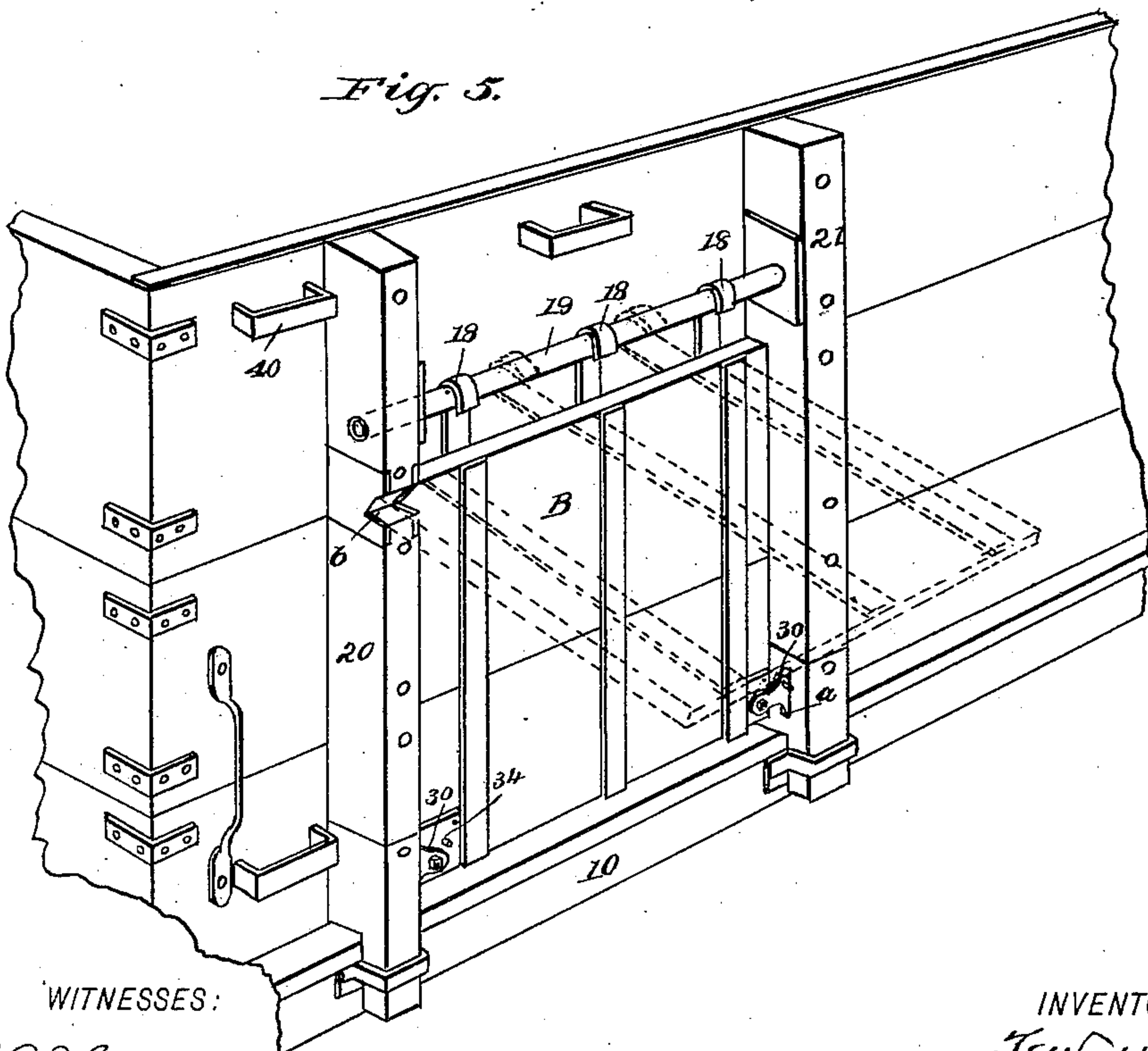


Fig. 5.



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UNITED STATES PATENT OFFICE.

THOMAS WATKINS, OF COAL BLUFF, ASSIGNOR OF ONE-HALF TO WILLIAM J. SCULLY, OF PITTSBURG, PENNSYLVANIA.

GONDOLA CAR.

SPECIFICATION forming part of Letters Patent No. 427,938, dated May 13, 1890.

Application filed January 4, 1890. Serial No. 335,902. (No model.)

To all whom it may concern:

Be it known that I, THOMAS WATKINS, of Coal Bluff, in the county of Washington and State of Pennsylvania, have invented a new and Improved Gondola Car, of which the following is a full, clear, and exact description.

This invention relates to cars of the class ordinarily employed in the transportation of coal, ore, coke, &c., the object of the invention being to provide for the easy unloading of the car; and to the ends named the invention consists in the construction and arrangement of parts hereinafter more fully explained, and specifically pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a side view of a car embodying my invention. Fig. 2 is an enlarged cross-sectional view of one of the doors or traps. Fig. 3 is a detail view of one of the catches employed in connection with the doors. Fig. 4 is a cross-sectional view of the car-body, and Fig. 5 is a perspective view of a portion of the car-body.

In the drawings above referred to, 10 represents the sills proper, 11 the center sills, and 12 the intermediate sills. The lower faces of the center sills 11 are arranged in about the same horizontal plane as are the upper edges of the sills 10, the sills 11 resting upon cross-bars 13, as shown, these bars 13 being framed and held to place in any appropriate manner, while the car is braced laterally by truss-rods 14. Directly above the sills 11 there is arranged a horizontal board or floor section 15, and at either side of this board there are inclined sections 16 and 16^a.

The sides 17 of the car-body are formed with a number of ports or openings A, which said ports or openings are normally closed by traps or doors B. These traps or doors B are provided with upwardly-extending hooked straps 18, which said straps are arranged to engage a rod or bar 19, that is passed through one of the posts 20 and half-way into the adjacent post 21. In this way I provide for the

swinging of the door from the position in which it is shown in full lines in Figs. 4 and 5 to the position indicated by dotted lines in said figures, and I also provide for the easy removal of the door should such removal be deemed desirable.

In order that the doors may be held closed against accidental displacement, I provide each door with two gravity-catches 30, that are arranged to enter recesses *a*, formed in the posts 20 and 21, the catches being provided with a knob or handle 31, by means of which they may be thrown back against stop or limit pins 32, all undue dropping of the catches when they are within the post-recesses being prevented by stop or limit pins 33.

In practice I prefer to pivotally connect the catches to plates 34, that are secured to the door-corners.

Such catches as the one above described will act to hold the door in a closed position against any pressure from within, and at the same time the catches may be readily thrown from their receiving-recesses when it is desired to discharge the contents of the car.

As the car is discharging, it is desirable that the material should not strike against the door—that is, that the door should be held above the falling mass—and to this end I prefer to form one of the posts with a recess, as *b*, adapted to receive the upper edge of the door, the door being slid laterally from the position in which it is shown in full lines in Fig. 5 to the position indicated by dotted lines, and after the upper edge of the door has entered the slot *b* all downward movement of the door will be prevented, as will be readily understood.

Although not positively essential, I prefer to provide the car-body with a number of stirrups, as 40, such stirrups being arranged to receive the posts of coke or other racks.

By means of the construction hereinbefore described, and illustrated in the drawings, I provide for the quick and easy unloading of a car, thus avoiding the heavy labor of shoveling out the contents of the car, and although the car forming the subject-matter of this application is designed primarily for use in the transportation of coal, coke, ores, &c., it will

of course be understood that it might be used for any other purpose.

Having thus described my invention, I claim as new and desire to secure by Letters

5 Patent—

1. The combination, with the door-opening, the vertical posts 20 21 at the sides thereof, and the round bar 19, connecting said posts above and in front of the door-opening, of
10 the door adapted to close said opening, and hinge-straps 18, fixedly secured to the inner face of the door and extending above its upper edge around the rod to rock and slide thereon, whereby the door may be held open
15 by first swinging it outwardly and then laterally until its upper edge engages the outer face of one of the posts, substantially as set forth.

2. The combination, with the car having its
20 bottom inclined from opposite sides of the

center and door-openings in the sides, of the posts 20 21, one of each pair of which has a recess *b*, and each pair having recesses *a* in the lower ends of their adjacent faces, rods 19, the doors B, mounted to swing on said 25 rods and to slide laterally thereon into engagement with said recesses *b*, and the latches at the lower corners of the doors to engage the recesses *a*, substantially as set forth.

3. The combination, with the posts 20 and 21, forming a portion of a car-body, of a rod 30 or bar carried by said posts and a trap or door mounted to turn and to slide upon such rod, one of the posts being provided with a recess adapted to receive the upper edge of the door, 35 substantially as described.

THOMAS WATKINS.

Witnesses:

GEO. A. FIFE,
GEO. T. LINN.