(No Model.) 3 Sheets—Sheet 1.

J. A. STEWART.

STOCK CAR.

No. 455,130. Patented June 30, 1891.

Fig. 1.

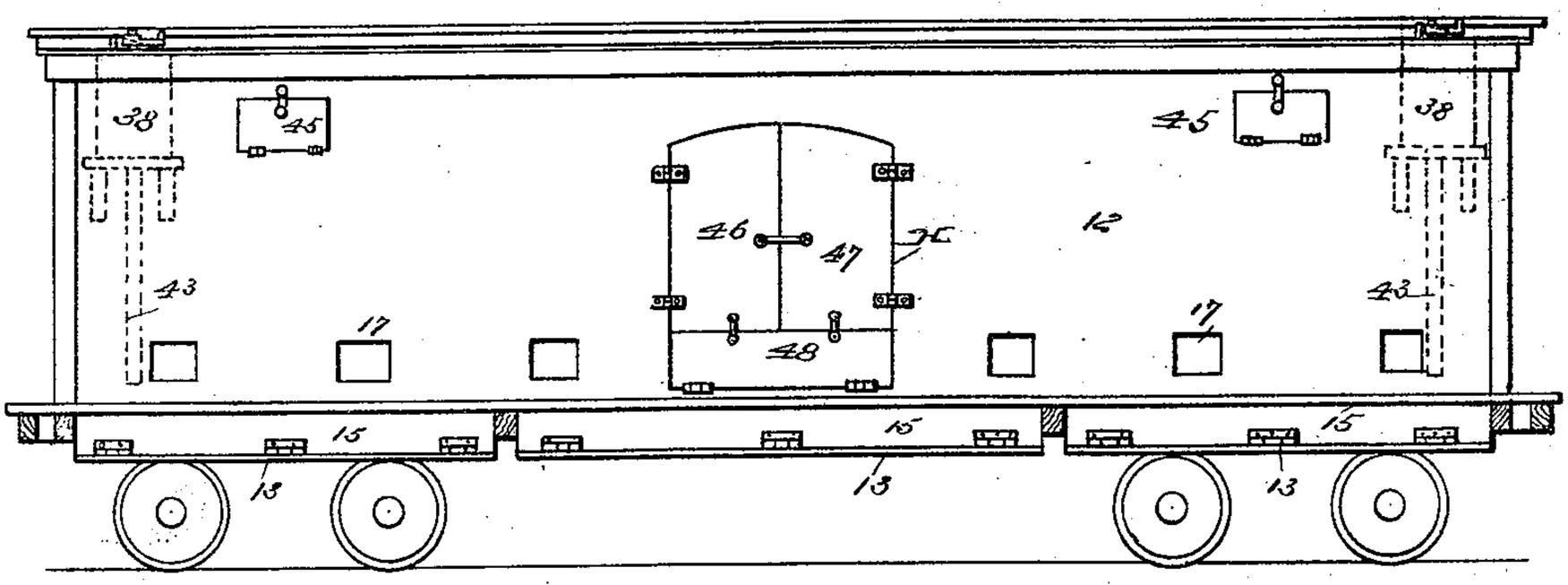
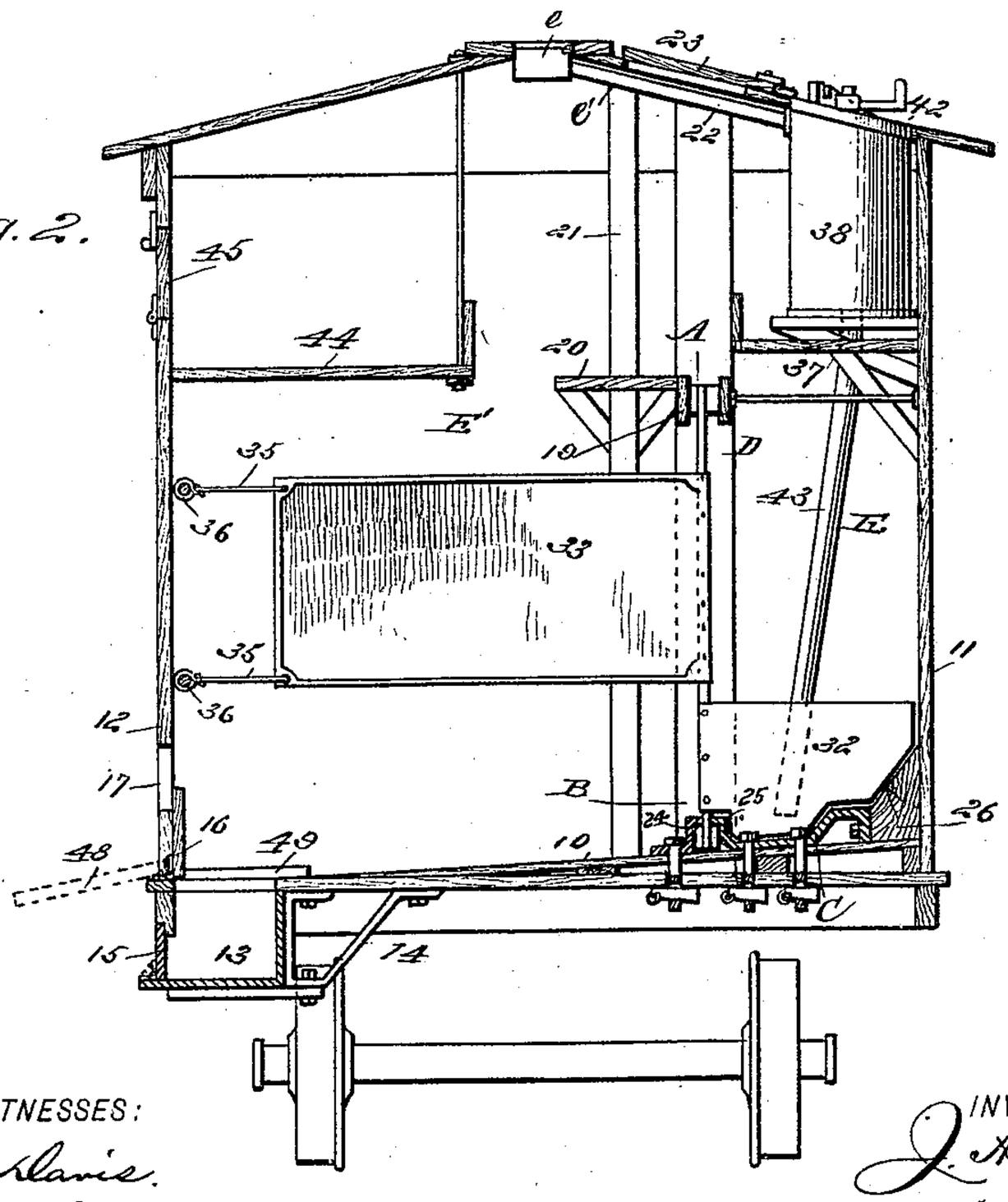


Fig. 2.



WITNESSES:

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(No Model.)

3 Sheets—Sheet 2.

J. A. STEWART.

STOCK CAR.

No. 455,130. Patented June 30, 1891.

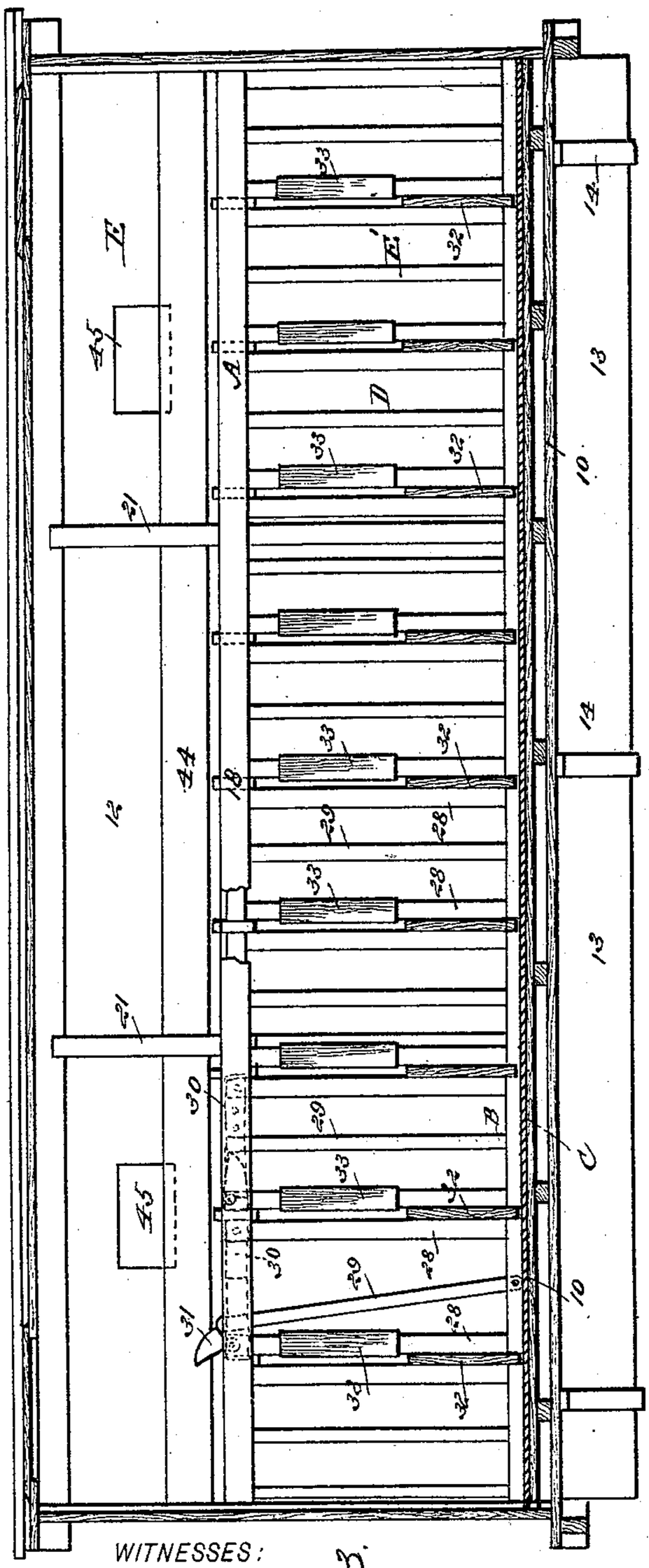

Fig. 3.

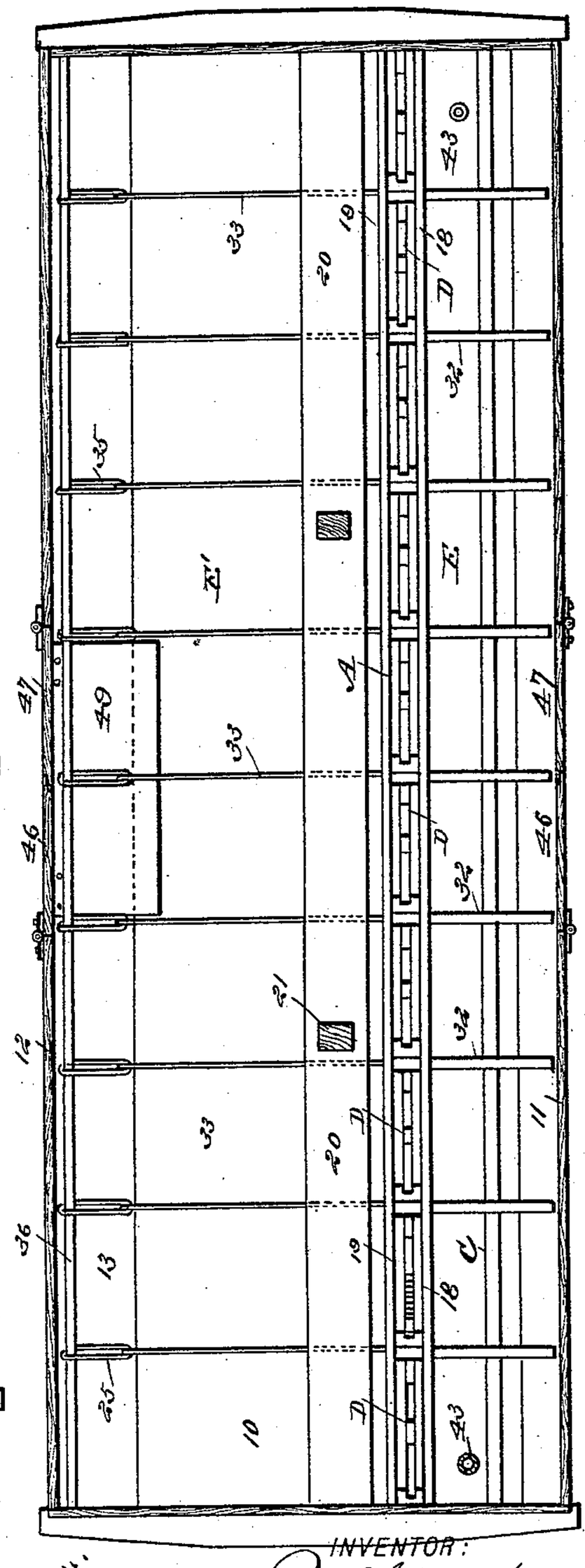

Fig. 4.

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(No Model.) 3 Sheets—Sheet 3.

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STOCK CAR.

No. 455,130. Patented June 30, 1891.

Fig. 5.

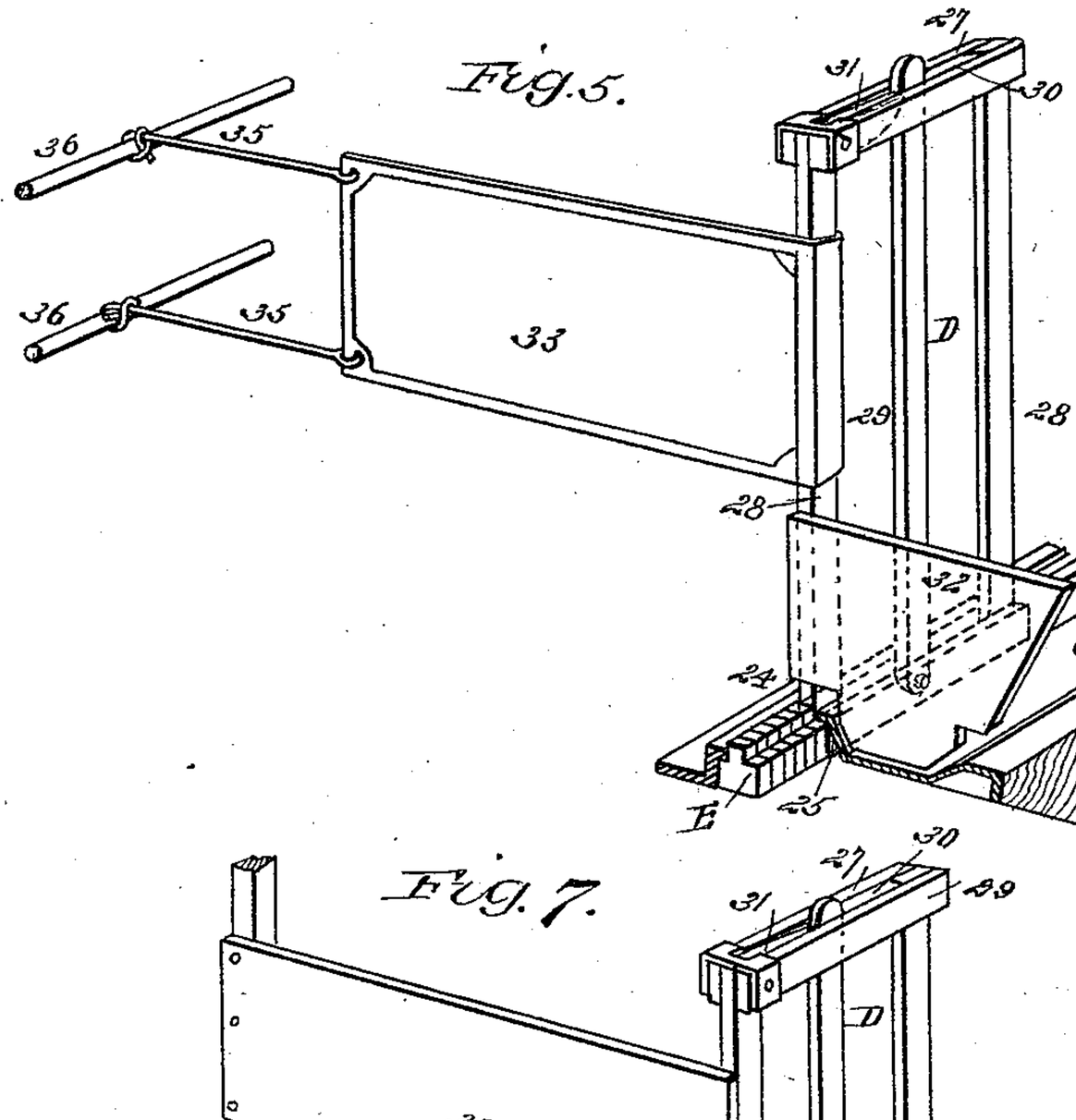

Fig. 6.

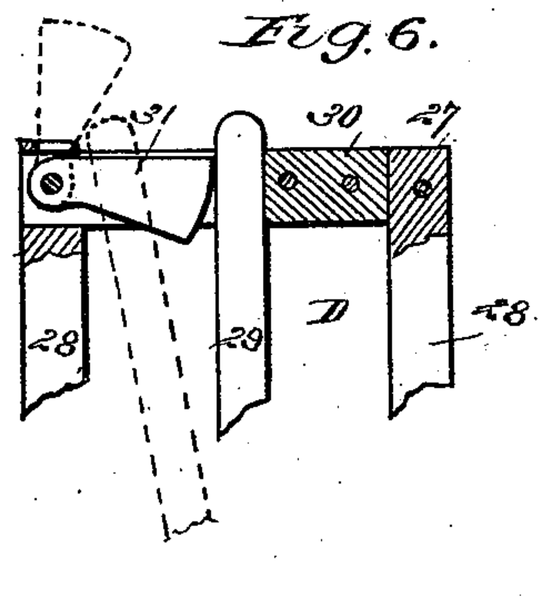

Fig. 7.

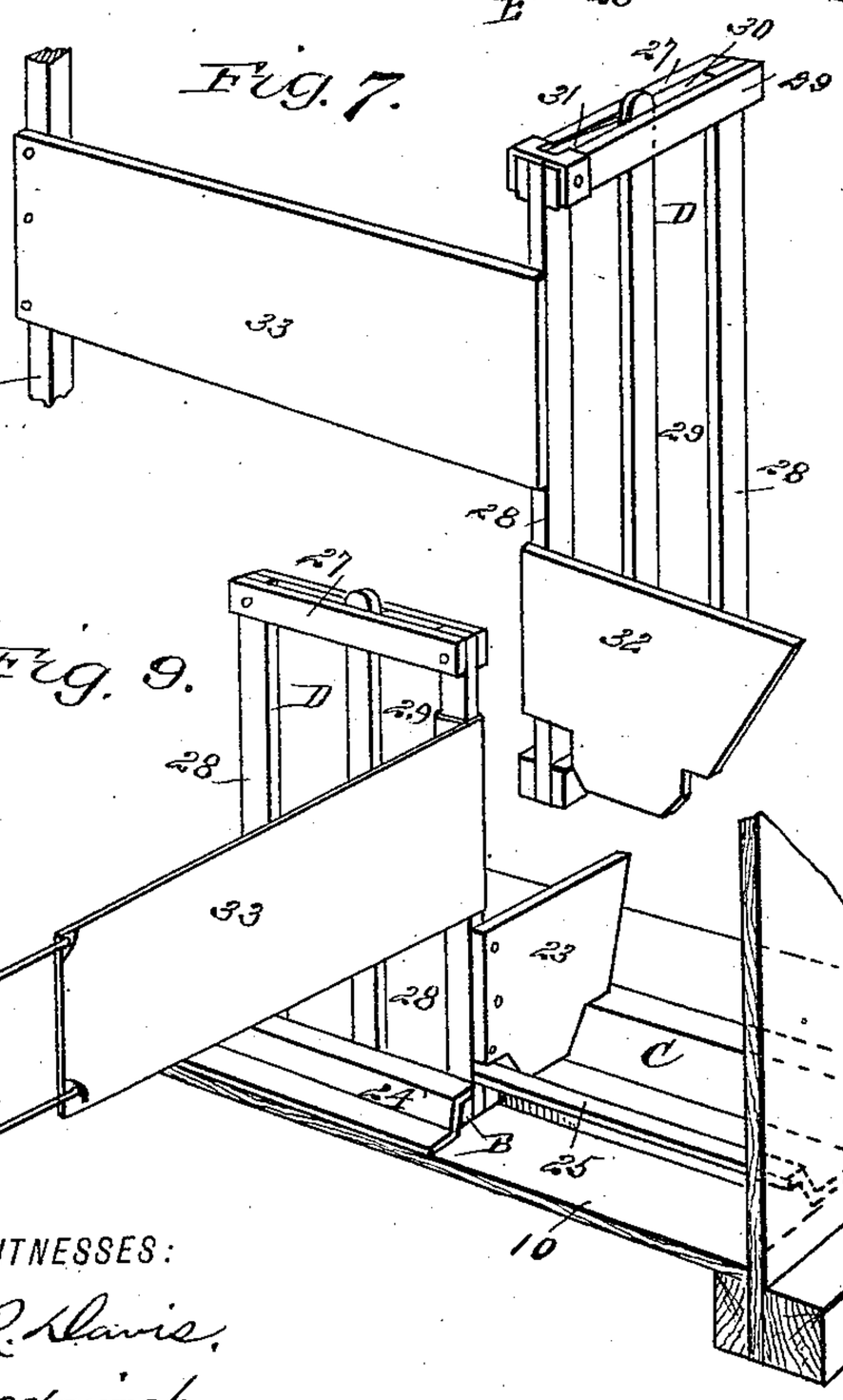

Fig. 8.

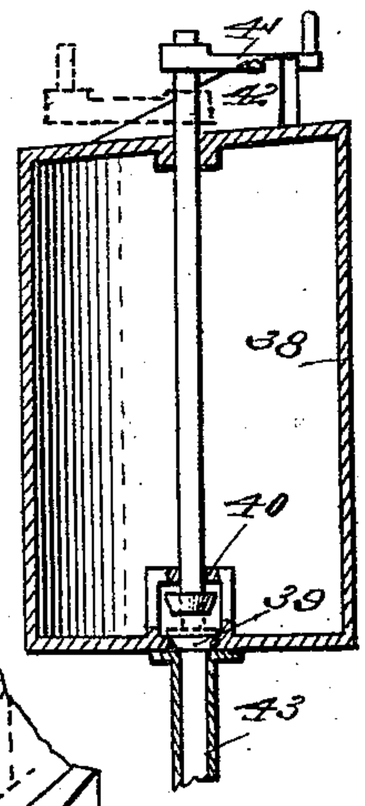

Fig. 9.

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UNITED STATES PATENT OFFICE.

JOHN A. STEWART, OF MANSFIELD, OHIO.

STOCK-CAR.

SPECIFICATION forming part of Letters Patent No. 455,130, dated June 30, 1891.

Application filed September 17, 1890. Serial No. 365,275. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. STEWART, of Mansfield, in the county of Richland and State of Ohio, have invented a new and useful Improvement in Stock-Cars, of which the following is a full, clear, and exact description.

My invention relates to an improvement in stock-cars, and has for its object to provide a car with removable stanchions and to so construct said stanchions that separate compartments may be thereby conveniently and expeditiously formed in the car to accommodate one or more animals.

Another object of the invention is to provide a means whereby the stock may be readily attended to at any time, whether the car is in motion or not, and to provide for the storage in the car of a quantity of food, and means for introducing food into the storage-compartment at any point on the road without interfering with or in the least disturbing the animals.

A further object of the invention is to provide a water-trough in the car capable of being supplied from stationary reservoirs and to so construct the trough that although divided into compartments water introduced at one end will flow to the other.

Another object of the invention is to provide in the bottom of the car a receptacle for excrements and to so construct said receptacle that its contents may be conveniently and expeditiously discharged.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and 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 elevation of a car constructed in accordance with my invention. Fig. 2 is a central transverse section through the car. Fig. 3 is a longitudinal section through the car, the said section being taken back of the stanchions and through the water-trough. Fig. 4 is a horizontal section of the car, taken immediately above the stanchions. Fig. 5 is a partial perspective view of the water-trough, the lower slideways of the stanchions, and a perspective view of one of the stanchions in position. Fig. 6 is a partial sectional view of one of the stanchions, illustrating the latch employed in connection therewith. Fig. 7 is a perspective view of the stanchion. Fig. 8 is a central vertical section through one of the water-reservoirs, and Fig. 9 is a perspective view of a stanchion located near one end of the car and the end portion of the water-trough.

The bottom 10 of the car is made to incline from one side 11 downward in the direction of the opposite side 12, as best shown in Fig. 2, and at the side 12 of the car the bottom 10 is cut away longitudinally. Immediately beneath the opening thus produced a receptacle 13 is located, secured to the bottom by means of brackets 14 or equivalent devices, or the said receptacle may be attached to a beam of the car. The front of the receptacle 13 is flush with the side of the car, or practically so, and the outer side of the receptacle is provided with one or a number of doors 15, which doors are preferably hinged to the bottom of the receptacle and drop downward and outward. It will be understood that the receptacle 13, which is adapted for the reception of excrements, extends from one end of the car to the other. When the car is not used as a stock-car, this receptacle may be covered by means of a board 16, hinged at the floor-line to the inner side of the car, which board is adapted to drop down flush with the main floor.

In the side of the car at which the receptacle 13 is located, slightly above the floor-line, a number of openings 17 is produced, through which openings proper implements may be introduced by means of which to clean the surface of the floor 10 when required.

Between the center of the car and the side 11 thereof, about midway between the top and bottom, a slideway A is constructed, consisting, preferably, of two spaced parallel beams 18 and 19, secured to the ends of the car and to any desired intermediate side support through the medium of rods, for instance, as shown in Fig. 2. To the beam 19 a board or platform 20 is horizontally secured, which board or platform may also be attached, if found desirable, to uprights 21, adapted to support the roof, as shown in Fig. 2. The

platform 20 is adapted to be used by the caretaker in feeding or overlooking the stock, and access is had thereto through one or more man-holes 22, formed in the roof of the car, which man-holes are closed normally by suitable covers 23.

Immediately beneath the upper slideway A a lower and corresponding slideway B is constructed, attached to the floor of the car. This lower slideway is constructed, preferably, of metal and comprises two sections 24 and 25. The section 24 preferably consists of a series of stop-sections, and the metal employed is ordinarily sheet metal and is somewhat Z-shaped in cross-section, the lower horizontal member being bolted to the floor, while the upper horizontal member faces the side 11 of the car. The section 25 of the slideway is virtually one side of a water-trough C, which trough extends from end to end of the car and transversely within a short distance of the side 11 thereof. This trough is made of metal and is somewhat U-shaped in cross-section, the outer side edge being bent downward to form a flange whereby it is secured to a block or beam 26, forming a portion of or attached to the side 11 of the car. The opposite side of the trough constitutes the section 25 of the lower slideway B, and the said section is formed by producing an outwardly-extending horizontal flange upon the upper edge of the trough, which is also in horizontal alignment with the upper flange of the section 24, as is clearly shown in Figs. 5 and 9. In the latter figure one of the stop-sections of the section 24 is illustrated as removed to admit of the introduction into the slideways of stanchions D. The lower slideway sections and the trough are preferably retained in position by bolts passed through them and the auxiliary and main bottoms of the car, which bolts are slotted to receive keys, as best shown in Fig. 2. By this mode of attachment the trough and slideways may be conveniently and expeditiously removed when desired.

Any desired number of stanchions may be employed—as, for instance, a sufficient number may be inserted in the slideways to divide the car into two longitudinal compartments E and E′. The stanchions may be of any desired width. Usually, however, they are constructed as illustrated in Figs. 5, 6, 7, and 9, in which views it will be observed that the top and bottom of each stanchion consist of two spaced and parallel horizontal slats 27, made of any desired material, the top and bottom slats being united by perpendicular side slats 28, the ends of which slats extend upward between the top and bottom slats. An intermediate slat 29 is also employed, which is pivoted between the lower slats and extends through and slightly beyond the upper slats. The upper end of the intermediate slat 29 is not fastened to the stanchion directly; but one side is adapted to bear against a block 30, located between the slats at the top of the stanchion, and when the pivoted slat engages with the block it is in the perpendicular position or parallel with the said slats and is retained in this position by means of a button 31, pivoted in the upper portion of the stanchion and provided with a cam-face at its free end, which cam-face is adapted for engagement with the slat 29, as illustrated in positive lines, Fig. 6.

When the button 31 is raised, as shown in dotted lines, Fig. 6, the pivoted slat may be moved in the direction of one side of the stanchion, thus creating ample space for the passage of an animal's head, and when the head of the animal has passed through the stanchion and is over the water-trough C the pivoted slat is restored to its normal position and locked. Thus the animal is prevented from withdrawing its head. When but few stanchions are used, the vacant portions of the slideways may be filled by wedges, which wedges prevent the stanchions from moving in the direction of the ends of the car. Each stanchion has attached to one side a partition-board 32, adapted to extend over the water-trough, and the lower edge of the partition-boards 32 are shaped to a cross-sectional contour corresponding to that of the trough. Thus the boards neatly fit in the trough, but are not engaged with the bottom of the trough, sufficient space being left between the trough and the partitions to admit of the gradual flow of water from one end of the trough to the other. Each stanchion is further provided with a partition 33, attached to the same side to which the partition 32 is secured, but nearer the upper end of the stanchion. The partition 32 extends at a right angle from the stanchion in a direction opposite to that of the partition 33. The upper partition 33 may be made of metal, wood, or a like material; but, preferably, it is constructed of canvas, as shown in Fig. 5, or of an equivalent flexible material, in order that when the stanchions are not used the partition may be readily folded around them.

When the stanchions are in place and the partitions 33 are in a horizontal position, extending transversely of the car, the space between two opposed partitions constitutes a stall, the width of the stall being the width of the stanchion. When board partitions 33 are employed, they may be screwed or otherwise removably secured to uprights 34, located near the side 12 of the car. When the flexible partitions are employed, ropes or cords 35 are secured to their ends and to rods, beams, or bars 36, extending from end to end of the car at the side 12 thereof, as shown in Figs. 2 and 5.

A shelf 37, extending longitudinally or from end to end of the car, is attached to and braced from the inner side face of the side 11 of the said car between the center and the roof. This shelf is adapted for the reception of hay in bales or otherwise, and the space between the shelf and the roof constitutes, virtually, a

storage-compartment. Upon suitable platforms in this storage-compartment, ordinarily at each end thereof, a water-tank 38 is placed, extending upward preferably flush with the roof. Each of the water-tanks is provided in its bottom with an opening 39, controlled by a valve 40, the stem of which extends upward through the top of the tank and is provided with an attached crank 41, whereby it may be raised or lowered, the crank being held to travel upon an inclined plane 42, constructed upon the top of the tank. When the crank or handle is in engagement with the highest point of the inclined plane, the valve is opened as far as possible, and when the handle rests upon the top of the tank the valve is closed. The valve-opening 39 is surrounded by the upper end of a tube 43, and the said tube extends downward, as shown in Fig. 2, a proper distance to discharge water into the trough C. The tanks are ordinarily filled through the medium of wells *e*, provided with a cover and located in the roof of the car, and pipes *e'*, leading from the wells to the tanks, as shown in Fig. 2.

Upon the inner face of the side 12 of the car a second and preferably larger shelf 44 is longitudinally placed, supported by suitable braces or rods pendent from the roof, which shelf may be utilized for the storage of fodder or for the storage of any of the stanchions or other removable fixtures of the car when the same are not in use.

It will be readily observed that sufficient water may be carried to amply supply the stock for a number of days, and that when the attendant is standing upon the platform 20 the feed may be conveniently reached by him, and thus may be readily and expeditiously distributed to each of the stalls. Water may be supplied to the tanks from the top of the car in the usual manner, if so desired.

In order that the fodder or feed of any description may be loaded at any point along the road without interfering with the stock, doors 45 are constructed to close openings in the sides of the car near the top, which openings are above the shelves 37 and 44. The doorways H are closed, preferably, by three doors 46, 47, and 48. The door 48, which is the lower door, is hinged to the bottom of the door-opening and extends transversely across the same, being adapted to fall outward, as shown in dotted lines in Fig. 2, and when so dropped it serves as a portion of a gang-plank. The doors 46 and 47 are hinged to the sides of the door-opening in the usual manner, and when the three doors are closed they are securely bolted together by any suitable devices. When the stock is being loaded into the car, the portion of the receptacle 13 opposite the door-opening may be covered by a removable loading-board 49.

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

1. In a stock-car, the combination, with upper and lower slideways, one side member of the lower slideway being constructed in sections, of stanchions removably inserted in the slideways, and flexible partitions attached at one end to the stanchions and at the opposite end to one side of the car, as and for the purpose specified.

2. In a stock-car, the combination, with upper and lower slideways and stanchions removably located in the slideways, of a water-trough fixed in the car at one side of the stanchions, partitions attached to the stanchions and extending outward therefrom, being fitted transversely to the water-trough and extending nearly to the bottom thereof, and stall-partitions secured at one end to the stanchions, extending across the car in a direction opposite to the trough-partitions, the said stall-partitions being also attached to the car, as and for the purpose specified.

3. In a stock-car, the combination, with slideways produced in the car, one member of which slideways is sectional, of slatted stanchions removably located in the slideways, a pivoted slat located in each stanchion, and stall-partitions projected horizontally from the stanchions, as and for the purpose set forth.

4. In a stock-car, the combination, with a trough, of stanchions at one side of the trough, partitions secured to the stanchions and extending across the trough, and stall-partitions secured to the stanchions and projecting in a direction opposite to the trough-partitions, substantially as herein shown and described.

5. A stock-car provided with a water-trough, a tank for supplying water to the trough, a series of removable stanchions, partitions projecting from the stanchions across the trough and extending nearly to the bottom of the trough, and stall-partitions projecting from the stanchions, substantially as herein shown and described.

JOHN A. STEWART.

Witnesses:
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