

(No Model.)

3 Sheets—Sheet 1.

W. H. MILLER & N. Z. SEITZ.
STOCK CAR.

No. 382,238.

Patented May 1, 1888.

Fig. 1.

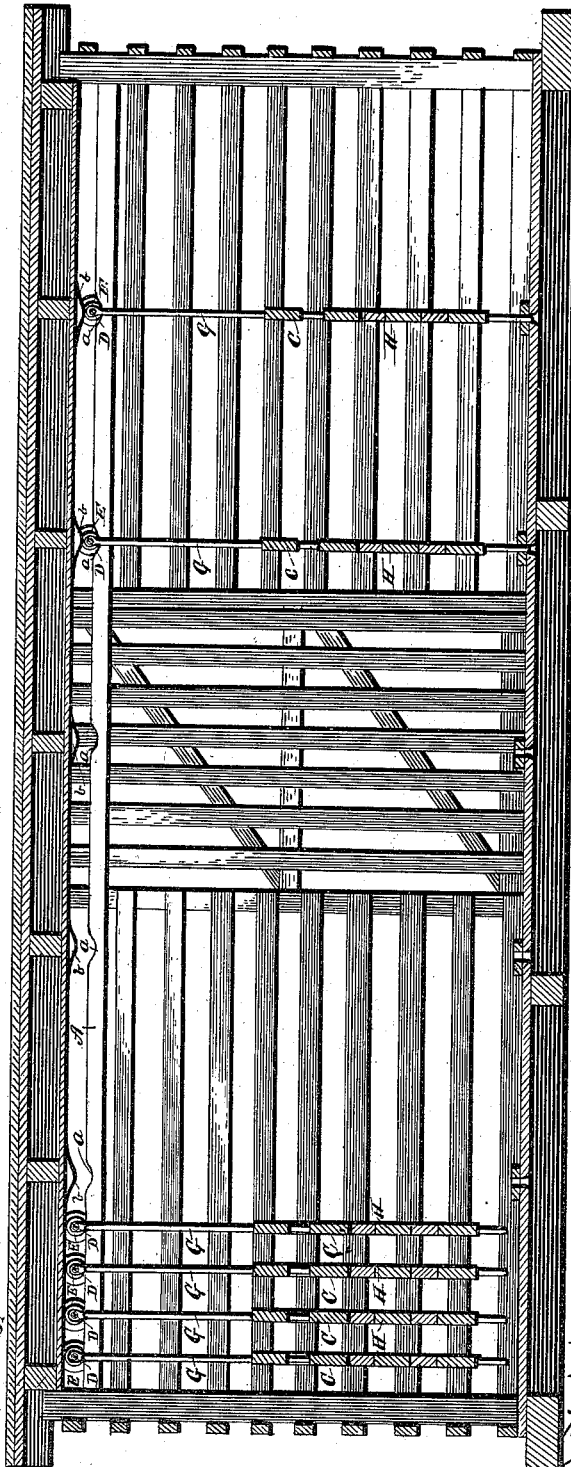


Fig. 3.

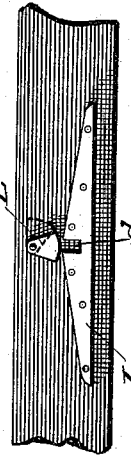


Fig. 2.



WITNESSES

Jno. S. Finch, Jr.
C. D. Davis.

INVENTORS:

W. H. Miller
N. Z. Seitz
By C. M. Alexander,
Attorney.

(No Model.)

3 Sheets—Sheet 2.

W. H. MILLER & N. Z. SEITZ.
STOCK CAR.

No. 382,238.

Patented May 1, 1888.

Fig. 4.

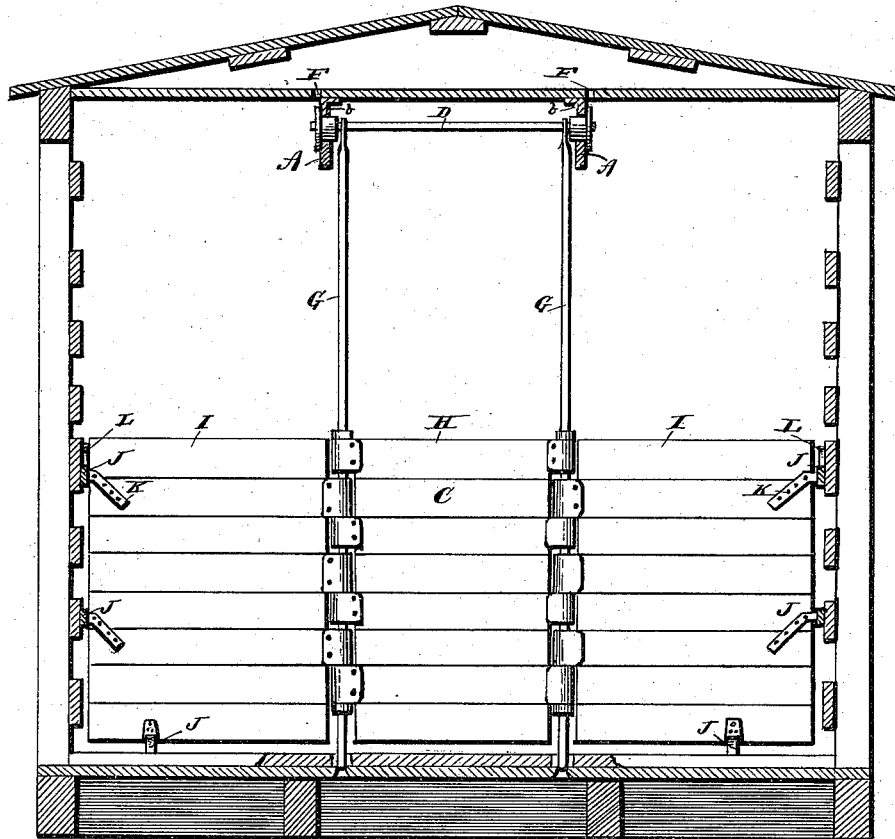


Fig. 5.

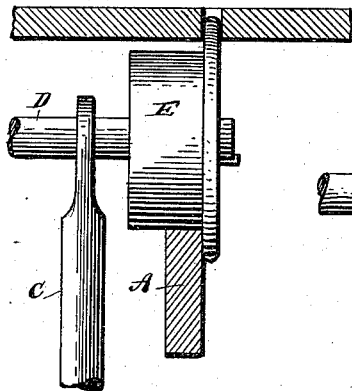
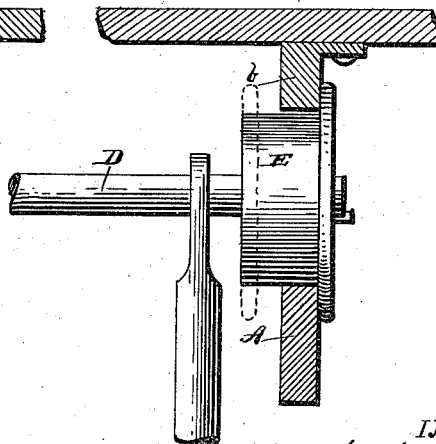


Fig. 6.



WITNESSES:

Jno. S. Finch
C. H. Davis

INVENTORS:

W. H. Miller and
N. Z. Seitz
By C. W. Alexander
Attorney.

(No Model.)

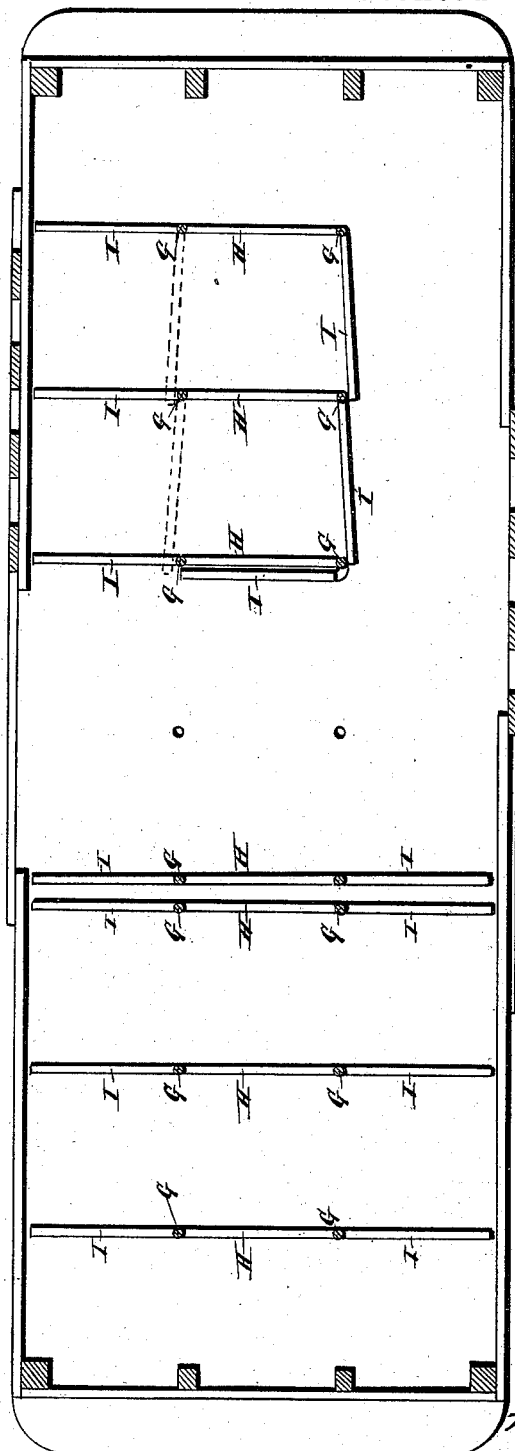
3 Sheets—Sheet 3.

W. H. MILLER & N. Z. SEITZ.
STOCK CAR.

No. 382,238.

Patented May 1, 1888.

Fig. 7.



WITNESSES:

Jno. S. Finch Jr.
E. D. Davis.

INVENTORS:

W. H. Miller and
N. Z. Seitz.
By C. M. Alexander
Attorney.

UNITED STATES PATENT OFFICE.

WILLIAM H. MILLER, OF YORK, PENNSYLVANIA, AND NATHANIEL Z. SEITZ,
OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNORS TO THE KOHLER
IMPROVED CATTLE CAR COMPANY, OF NEW YORK, N. Y.

STOCK-CAR.

SPECIFICATION forming part of Letters Patent No. 382,238, dated May 1, 1888.

Application filed March 16, 1888. Serial No. 267,416. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM H. MILLER and NATHANIEL Z. SEITZ, citizens of the United States, residing, respectively, at York, in the county of York and State of Pennsylvania, and Washington, in the District of Columbia, have invented certain new and useful Improvements in Stock-Cars, of which the following is a specification, reference being had therein to the accompanying drawings.

Our invention has relation to certain new and useful improvements in that class of railway-cars particularly adapted for the transportation of cattle from place to place, it being principally designed as an improvement upon that character of cars provided with movable and adjustable stall-partitions, whereby the animals are separated from each other while being transported, as will be more fully hereinafter specified.

The essential objects of this invention are to so construct and arrange the movable partitions that they may be readily and quickly adjusted to their proper places in the car at regular distances apart, and when so adjusted will automatically lock themselves firmly and securely, so as to effectually resist the efforts of the confined animals to free themselves; whereby the stall-partitions will be, when secured in their proper places in the car, perfectly rigid and secure, while at the same time they will be light, strong, and durable, and sufficiently elastic to permit of a limited movement of the animals when confined between them; whereby the loading of the stock will be greatly facilitated (a great desideratum with stock-cars) and be rendered much more safe to the persons engaged in that business than the methods now in use, it being well known that in loading the stock-cars now in use it frequently happens that a vicious and contrary animal will injure the attendants, or at least cause a serious delay in the loading process; and, also, whereby the partitions will be held securely upon their overhead tracks or ways, and thereby prevent evil-disposed persons and mischievous boys from removing them and carrying them off while the cars are standing on a siding, while at the same time their free travel upon the tracks will not be

in the least impeded, as will more fully hereinafter appear.

The invention has also other objects and advantages of minor importance, which will be hereinafter fully set forth.

In the accompanying drawings, which form part of this specification, Figure 1 represents a longitudinal sectional elevation of our improved car, two of the stall-partitions being set in their places in the car and the others being moved back near the end of the car out of the way. Fig. 2 represents a detail view of a portion of the stationary track on which the stall-partitions travel back and forth; Fig. 3, a detail view of one of the locking devices secured on the inner sides of the car and adapted to automatically lock the hinged sections or gates of the stall-partitions when the same are adjusted to their positions in the car; Fig. 4, a transverse sectional view of our improved car, showing one of its partitions locked in its place in the car; Figs. 5 and 6, enlarged detail views in section of a portion of the track and adjacent ceiling of the car, showing the flanged wheels or rollers of the partitions; and Fig. 7, a longitudinal sectional view of the car, showing more clearly the method of loading and unloading the stock.

Referring to the drawings annexed by letter, A A designate two stationary parallel tracks or ways extending from one end of the car to the other and lying approximately parallel with and a short distance from the ceiling of the car. At regular intervals the upper edges of these tracks are provided with depressions or recesses *a*, these depressions being formed in the tracks wherever it is desired that a stall-partition should be located.

Bolted or otherwise secured to the ceiling of the car immediately over the depressions *a* are blocks or brackets *b*, the lower curved edges of which are approximately the same shape or curvature as the recesses or depressions in the tracks, the lower edges of these blocks being thereby about parallel with the upper edges of the recesses in the tracks, as clearly shown in Fig. 1. Pivoted to the sides of the tracks, one at each depression therein, are the arms or sections B, (shown clearly in Fig. 2,) which are adapted to be

thrown across the depressions in the tracks to form bridges to permit the wheels of the partitions to pass over the depressions without dropping into them when it is so desired. The sides of the depressions in the track may be either gradually inclined and rounded, as shown in Fig. 1, whereby the wheels of the partitions may be quickly and easily lifted or forced out of the depressions, or they may be formed abruptly, as shown in Fig. 2, as the exigencies of the case may require.

The stall-partitions C are preferably hung loosely upon the axle D, which has keyed or otherwise fastened upon its ends the flanged wheels or rollers E, these wheels being adapted to travel upon the upper edges of the tracks, the flanges of the wheels on the outside of the track extending into continuous slots F, formed in the ceiling of the car over and parallel with the tracks. The flanges of the wheels E travel in the slots in the ceiling until the wheels drop into the recesses in the tracks, when the flanges leave the slots and pass behind the blocks, which serve the same purpose as the slots do while the wheels are upon the straight portions of the tracks. The object in thus mounting the wheels of the partitions is, essentially, to prevent the same from being removed from the tracks, after they are once put in place, by thieves and mischievous boys.

The stall-partitions each consist, essentially, of two vertical metallic rods, G, a stationary section, H, rigidly secured to these rods, and two swinging sections or gates, I, hinged to the said vertical rods G. The upper ends of these vertical rods G are somewhat flattened and broadened, and such flattened portions are perforated for the free passage of the axle D, from which they are loosely suspended.

The lower ends of the rods G (when the stall-partitions are in place and the wheels in the tracks fall into the depressions in the same) drop into holes or recesses in the bottom of the car, the object in this being to secure the partition against any lateral displacement that would be likely to ensue from the movement of the confined animals. These rods are preferably made elastic or flexible, so that they will always resume their normal vertical position after being bent by the animals in their efforts to release themselves. The object we have in view in thus having two vertical posts or rods and placing them at some distance apart is, mainly, to make a lighter yet stronger partition and to prevent the animals from turning or twisting themselves around after they are once confined in the stalls, it being obvious that the animals will be unable to get their heads and rumps past the rods. It is well known that with most of the stalls now employed the animals very frequently, in their efforts to free themselves, turn or twist half-way around, or nearly so, in their stalls, and, being thus in a position to exert their utmost strength, push or break down the partitions by main force; but with our parti-

tions this disadvantage is completely overcome, as the animals will be prevented by the vertical rods from turning a sufficient distance around to do any damage.

The middle stationary section, H, consists, preferably, of a frame of tongue-and-grooved boards secured rigidly between the vertical rods by means of metallic straps or otherwise. The hinged sections or gates I each consists, preferably, of a frame of boards suitably bound together and hinged or pivotally attached at their inner vertical edges to the vertical posts by means of suitable metallic straps. These gates have a slight vertical play on the vertical rods, as shown in Fig. 4, whereby they automatically lock themselves when they are swung into place. The fastening devices consist of metallic plates J, having formed in the center of their upper oppositely-inclined edges notches or recesses λ , into which the latch-irons K on the outer edges of the gates drop when the gates are locked in place. The plates J are secured to the interior sides of the car in line with the apertures in the floor and the depressions in the tracks, so that when the gates are swung into place the latch-irons thereon will ride up the upper inclined edges of the plates (carrying the gates with them) and drop into the notches in the upper edges thereof, and thereby lock the gates in place. To prevent the gates from being lifted out of the notched plates on the sides of the car by the confined animals, we pivot over the notches in the upper plates locking-dogs L, which move to one side when the latch-irons ride up the inclines; but as soon as the latch-irons drop into their notches these dogs swing back into their normal position over the notches. When the dogs thus swing back to their normal position over their notches, it is obvious that the latch-irons cannot be lifted out of the notches until an attendant moves back the dog by hand. In practice we may also desire to put one of the notched and double-inclined plates J upon the floor of the car under each gate to further assist in securely locking the gates in position, as clearly shown in Fig. 4.

It is evident that instead of using only one flange on the rollers E we may, without departing from the spirit of our invention, provide them with double flanges, as shown in dotted lines in Fig. 6 of the drawings. It is also obvious that we may journal these rollers loosely upon the shaft D and rigidly attach the vertical rods G G to the same in lieu of the method we have described.

An important advantage with this construction of stall-partitions is the facility and rapidity with which the stock can be loaded and unloaded. When it is desired to load the car with stock, the gates on one side of the car are swung around at approximately right angles to the partition, so as to close all the stalls but the one at the end of the car. By thus arranging the gates an aisle or alley-way is formed which leads to the open stall at the end of the

car. Now it is evident that by this arrangement the attendants will have but little difficulty in driving the animal to the open stall at the end of the alley-way, and as soon as the animal has been driven to the open stall the gate is closed, thus locking him in and at the same time opening another stall for the next animal, and so on until the car is full. In unloading the gates on the other side of the car (where the heads of the animals are) are thrown open one by one and the animals forced out in the reverse order to that in which they were driven in.

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

1. The combination, with the car and the tracks, the latter being provided with recesses or depressions at intervals, of the stall-partitions adapted to travel upon said tracks and drop into the said depressions in the tracks, substantially as described.

2. The combination, with the car and the horizontal track in the upper part thereof, these tracks being provided at intervals with depressions in their upper edges, of stall-partitions provided with wheels at their upper ends adapted to travel upon the said tracks and drop into the recesses in the same, the stall-partitions being suspended from the tracks, substantially as described.

3. The combination of the car, the stationary tracks in the upper part thereof, these tracks being provided with depressions at intervals in their upper surfaces, the flanged wheels secured to axles and adapted to travel upon the said tracks and drop into the depressions in the same, and the stall-partitions suspended from the said axle and adapted to enter recesses in the floor of the car, substantially as specified.

4. The combination of the car-body, the tracks secured in the upper part thereof, a stall-partition suspended from the said tracks by means of flanged wheels and consisting of the two vertical posts G, set some distance apart and having rigidly secured between them the middle stationary section, and the

two swinging sections I, hinged to the said vertical rods and extending to the side of the car, substantially as described.

5. The combination of the car and the stationary tracks, these tracks being parallel with and in close proximity to the ceiling of the car, and the stall-partitions suspended from the said tracks by means of flanged wheels, the flanges of the said wheels extending into slots formed in the ceiling of the car, substantially as and for the purpose set forth.

6. The combination of the tracks provided with depressions in their upper surface, the pivoted bridge-pieces adapted to span the said depressions in the tracks, the flanged wheel adapted to travel upon the tracks and bridge-pieces, and the stall-partitions suspended from the said flanged wheels, substantially as described.

7. The combination, with the car-body, of a suspended stall-partition consisting of a middle stationary section and two vertical movable hinged sections, the latch-irons secured to the outer edges of the hinged sections, the double-inclined plates provided with recesses in their upper surfaces, into which the said latch-irons automatically drop, and thereby lock the hinged sections, and means for holding the latch-irons in their recesses, substantially as described.

8. In a stock-car, the combination, with the body, the parallel tracks provided with coincident depressions *a* in their upper surfaces, and the blocks *b*, secured to the ceiling of the car immediately over the said depressions in the tracks, of the flanged wheels adapted to travel upon the said tracks and drop into the depressions therein, and the stall-partitions suspended from the said flanged wheels, as and for the purpose described.

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM H. MILLER.
NATHANIEL Z. SEITZ.

Witnesses:

ARTHUR N. GREEN,
HENRY C. BRENNEMAN.