(No Model.) 2 Sheets—Sheet 1.

S. P. TALLMAN.

STOCK CAR.

No. 262,707. Patented Aug. 15, 1882.

Fig. 1.

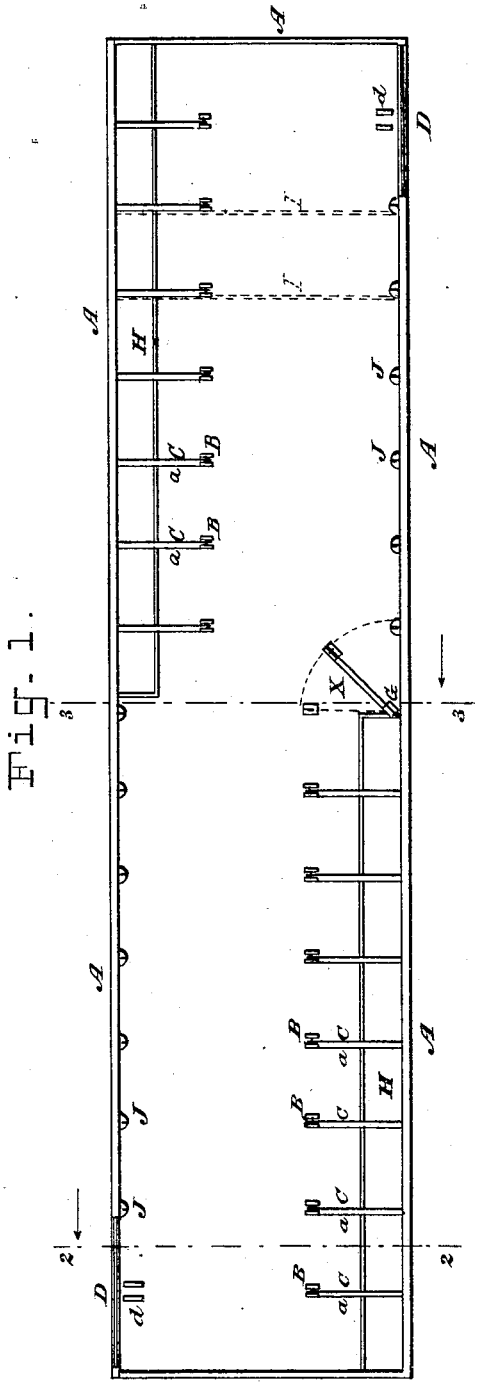

Fig. 4.

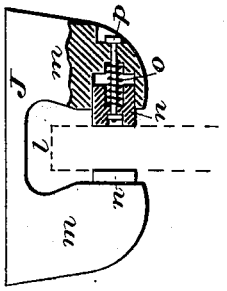

Fig. 5.

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(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

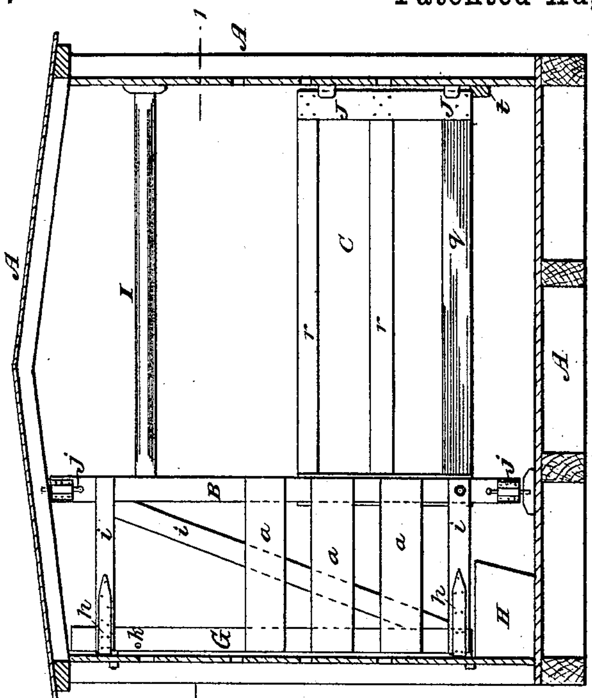
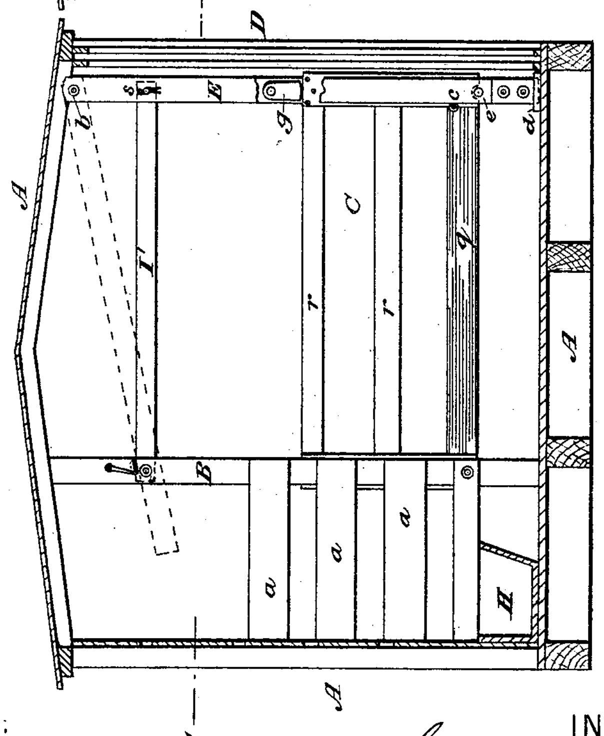


Fig. 2.



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UNITED STATES PATENT OFFICE.

STEPHEN P. TALLMAN, OF DUNELLEN, NEW JERSEY.

STOCK-CAR.

SPECIFICATION forming part of Letters Patent No. 262,707, dated August 15, 1882.

Application filed June 10, 1882. (No model.)

To all whom it may concern:

Be it known that I, STEPHEN P. TALLMAN, a citizen of the United States, residing at Dunellen, Middlesex county, New Jersey, have invented certain Improvements in Stock-Cars, of which the following is a specification.

My invention relates to that class of stock-cars in which the animals are kept separated by means of partitions, the said partitions being in the nature of flexible or yielding gates, arranged, by preference, to turn up edgewise into fixed shallow stalls arranged to house the heads of the animals. In these cars the shallow stalls are arranged half on one side of the car and half on the other side, and two doors are provided, one in each side of the car and at the opposite ends, whereby the cattle may be loaded and unloaded at either side of the car at will. Such a car is shown and described in my Patent No. 250,461, of December 6, 1881.

My present invention embodies certain improvements on the car described in said patent, and the novel features of the same will be hereinafter designated, and particularly defined in the claims.

In the drawings, Figure 1 is a horizontal section (or sectional plan) of my improved car, taken in the plane of the line 1 1 in Figs. 2 and 3. Figs. 2 and 3 are respectively vertical transverse sections (or sectional elevations) taken respectively on lines 2 2 and 3 3 in Fig. 1. Figs. 4 and 5 are detached detail views. Figs. 2 and 3 are on a scale twice that of Fig. 1.

As the doors in my car are about equal in width to two stalls, it is obvious that the partition-gate of the end stall will be about opposite the center of the door. Thus it becomes necessary to provide a special means of securing the free end of this gate when down, as, if the ordinary elastic fastenings were placed on the door, it would not slide, and such an arrangement would make it necessary to close both doors before the last gate could be lowered. To provide against this contingency is one of the objects of my present invention, and the means adapted will now be described with reference to Figs. 1 and 2.

A represents in general the sides, roof, floor, &c., of the car; B, the twin-membered post in which the partition-gate is pivoted; C, the gate in general; *a a*, the cross-slats which form the partition between adjacent shallow stalls, and D the opposite door in the side of the car. These features are in general the same as those shown in my former patent.

In order to provide a fastening for the free end of the gate C when it is down, as shown in Fig. 2, and one independent of the door D, I construct a post, E, of twin members, substantially like the post B, and suspend it loosely at *b* from the car-roof opposite the post B, and near the door-opening. When the car is being loaded this post is hung up, as indicated in dotted lines in Fig. 2, so as not to obstruct the door-opening. A convenient means of hanging it is to provide it with an eye or staple, *c*, and provide the post B with a hook to engage said eye. When the last two animals are to be placed, this post is released and brought down to the position shown in Fig. 2, when its lower end rests between two cleats, *d d*, on the floor, which prevent any sidewise movement. The gate C is now lowered, and its free end enters the space between the twin members of the post. When down a notch in the lower edge of the gate engages a pin or cross-bar, *e*, in the post, which prevents the post from swinging crosswise of the car.

To prevent the gate from being lifted, so as to disengage the gate from the pin *e*, a gravity (or spring) detent, *g*, is hung between the members of the post above the gate and arranged to rest over the same. I have broken away one member of the post in Fig. 2 to clearly show this detent. When the gate is lowered its end displaces this detent, as will be well understood, and when the gate is down the detent falls back over it. Before the gate can be raised this detent must be displaced by hand.

By reference to Fig. 1 it will be seen that although there are eight stalls on each side of the car there are eight partitions on one side and but seven on the other. I find that for convenience in placing the animals it is desirable to arrange the eighth or last partition to swing around out of the way. This partition I have designated generally and arbitrarily by X in Fig. 1, and have shown it therein as swung part way around. The construction of this partition I will now describe with especial reference to Fig. 3.

G is a post hinged to the side of the car with hinges *h h* so as to swing horizontally,

and this post is connected rigidly to the post B by suitable ties and braces, *i i*. This particular post B is not fixed in its position in the car, as are the other posts B, but is free to swing around on the hinges *h*. To fix it in its position for the time being it may be provided with socket-bolts *j j*, as shown in Fig. 3, or other suitable or equivalent fastening devices. In order to enable this swinging partition to be swung in either direction, the post C stops short above the feed-trough H. The gate C in this partition is estopped from turning back so as to rest on the trough H or against the side of the car, as this would prevent the partition from swinging freely. This result may be effected in any convenient way—as, for example, by inserting a pin through the post G at *k*. The top rail of the gate will rest against this pin when the pin is turned up.

I find that the animals are apt to rear upon and over the gates, especially when loading them, whereby they injure the gates and themselves. To prevent this I fix over each gate a rounded bar, I, which extends entirely across the car from side to side or from the fixed posts B to the opposite sides, as preferred. These bars should not be fixed precisely over the gates, but a little to one side, so as not to interfere with the lifting of the gates. The bars over the end gates in the car are not necessary; but I prefer in this case to hinge to the post B (see Fig. 2) a bar, I′, which hangs by the side of said post B when the post E is hung up; but when said post E is erected, as in Fig. 2, the free end of this bar I′ is raised and secured by a pin, *s*, or other suitable means to the post E.

In Fig. 4 I have shown a detached plan on a larger scale of my improved elastic fastening for the free end of the gate when down. The right-hand side of the figure is in section, to show the internal parts. J is a cast-metal block having a recess, *l*, formed in it. This construction leaves two cheeks, *m m*, to embrace the gate. These blocks are secured to the sides of the car at the proper points to receive the end stiles of the gates when the latter are turned down, and two or more of such blocks, arranged in a line, one over the other, may be employed for each gate. To permit the gate to yield a little elastically when pressed from either side, I mount in each cheek *m* a block, *n*, with a slightly rounded or convex face, and back this block with a spring, *o*. The block *n* is held in place by a bolt, *p*, free to play longitudinally. The gate-stile is wedged and elastically held between these blocks *n*. The gates are upheld by strips *t* when in place.

In lying down the animal is apt to be cramped for room and to press strongly against the lower slat of the gate. I therefore prefer to make this slat *q* of rubber, leather, or other similar yielding fabric strained between the gate-stiles, and to make the other slats, *r r*, of wood. In lieu of making the slat *q* of the materials mentioned, however, it might be made of rigid material—as wood, for example—and be padded.

In Fig. 5 I have shown a cross-section of a bottom slat so constructed, as in Figs. 2 and 3 the bottom slat is represented as a band of flexible material, as leather or rubber.

In my Patent No. 250,461 I showed a gate in which all of the slats were made from elastic material, as thin wood or steel; but these slats were not flexible in the sense or to the extent that rubber or leather is flexible. If they were, a gate could not be formed of them. I now propose to substitute for the lower slat of such a gate a strained strip of rubber, leather, or other similar soft yielding fabric.

I have shown but one of the partitions hinged, and that is the one nearest the center of the car; but any one or all may be hinged in the same way, and such hinged partitions may be employed in connection with gates made to swing horizontally or to be turned out of the way in any manner.

I am aware that hinged gates or partitions constructed on the lazy-tongs principle and arranged to extend across the car have been proposed, and that these have been arranged in alternate order on opposite sides of the car and have been made to swing horizontally. This I do not claim. In my construction I do not arrange my shallow-stall partitions in alternate order, but in two series arranged at opposite ends and on opposite sides of the car as clearly shown, and I hinge the stall-partition at the end of one series nearest the middle of the car, for the purposes specified.

I do not wish to claim herein the arrangement of shallow stalls on both sides of the car, nor the arrangement of the gates to turn up edgewise into the stalls, as these are shown and described in former patents of mine; but

What I do claim is—

1. In a stock-car provided with shallow stalls and partition-gates to turn up into said stalls, the posts E, suspended by their upper ends and provided with means for securing the free end of the gate thereto, substantially as and for the purposes set forth.

2. In a stock-car provided with shallow stalls to house the heads of the animals, and gates hinged to the partitions to separate their bodies, the partition between adjacent stalls, hinged to the car and arranged to swing around horizontally, substantially as and for the purposes set forth.

3. The combination, in a stock-car provided with shallow stalls and partition-gates to turn up into the same, of the fixed bars I I, arranged across the car above the gates, and the said gates, all arranged substantially as and for the purposes set forth.

4. The combination, to form a swinging and folding partition in a stock-car, of a stall-partition arranged and hinged to swing horizontally, and a partition-gate pivoted in said partition and arranged to turn up on end alongside of it, the stall-partition being provided with means for fastening it in position when turned out into the car, substantially as set forth.

5. In a stock-car, the combination, with a partition-gate, C, arranged to turn up on edge, of the elastic fastening secured to the opposite side of the car, and provided with a recess to receive the gate-stile, and spring-blocks *n* to press laterally upon the stile when it rests in the said recess, substantially as set forth.

6. The gate C, arranged to turn up into the shallow stall, and provided with a lower slat, *q*, constructed substantially as and for the purposes set forth.

7. The combination, in a stock-car provided with shallow stalls, as shown, of the suspended post E, provided with pin *e* and detent *g*, the cleats *d d* to steady the foot of said post, and the gate C, with a notch to engage the pin *e* in the post, substantially as set forth.

8. The combination, in a stock-car provided with shallow stalls, as shown, of the bar I′, hung from the post B, the suspended post E, and the gate C, all constructed and arranged substantially as set forth.

9. A stock-car provided with shallow stalls to house the heads of the animals, divided into two series, said series being arranged at opposite ends and on opposite sides of the car, and the stall-partition nearest the center of the car arranged to swing around horizontally, whereby a wider passage is made for convenience in loading and unloading, substantially as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

STEPHEN P. TALLMAN.

Witnesses:

HENRY CONNETT,

ARTHUR C. FRASER.