

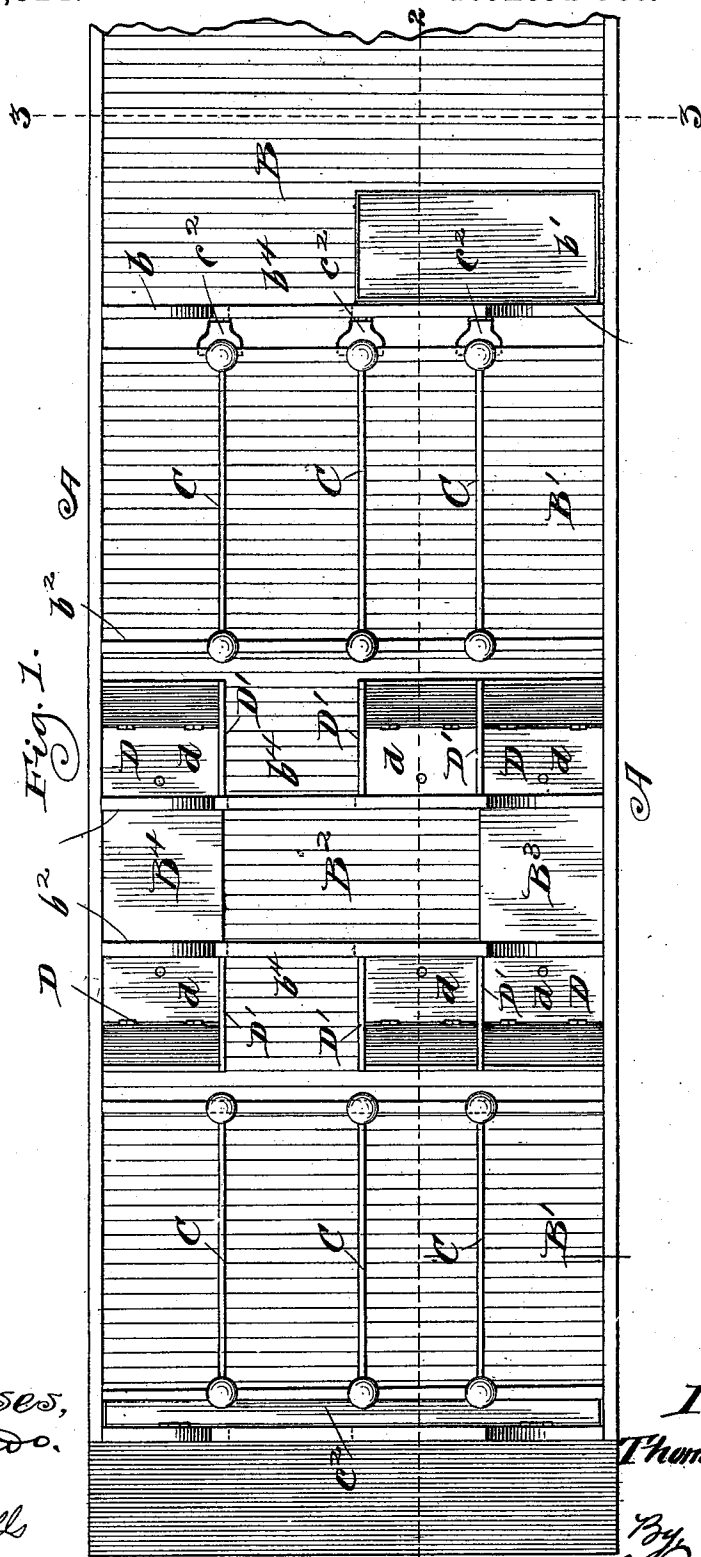
(No Model.)

3 Sheets—Sheet 1.

T. BOWLES.  
STOCK CAR.

No. 507,524.

Patented Oct. 31, 1893.



Witnesses,  
Geo. L. Waldo.

A. S. Wells

Inventor,  
Thomas Bowles,

By  
Joseph G. Parkinson, Atty.



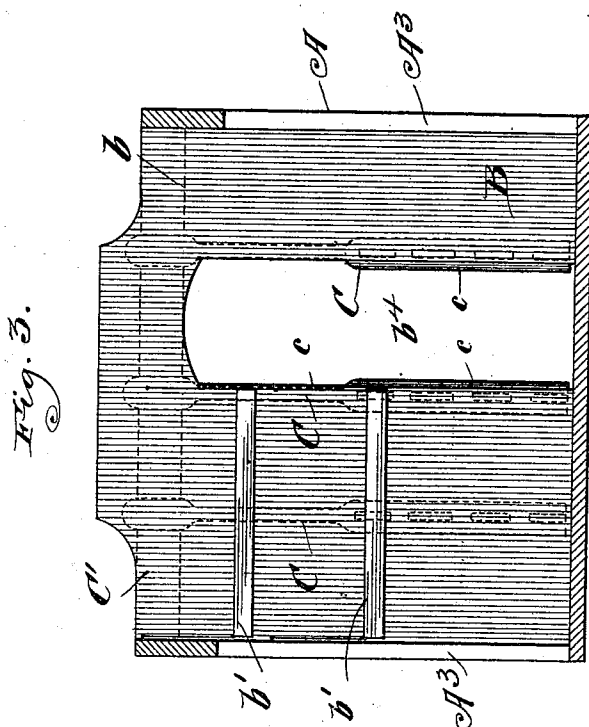
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Att'y.

# UNITED STATES PATENT OFFICE.

THOMAS BOWLES, OF JANESVILLE, WISCONSIN.

## STOCK-CAR.

SPECIFICATION forming part of Letters Patent No. 507,524, dated October 31, 1893.

Application filed December 11, 1891. Serial No. 414,661. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS BOWLES, a citizen of the United States, residing at Janesville, in the county of Rock and State of Wisconsin, have invented certain new and useful Improvements in Stock-Cars, of which the following is a specification.

This invention relates primarily to cars for the transportation of horses, although adapted for the transportation of other stock, especially blooded stock of such value as to warrant an increased outlay for their safe and comfortable carriage.

One object of the invention is to obtain an uninterrupted passage or aisle from one end of the car to the other, for the attendants; another object is to obtain ready access to all of the stalls and mangers from such passage-way; still other objects are to cut off all draft; to obviate the tendency to sidewise swaying; to locate tanks and feed-bins conveniently to the mangers; to facilitate the cleaning out of the stalls from the end platforms of the cars; and to provide, in one compartment, sleeping accommodations for the attendants, readily accessible to the stalls, and storage rooms for feed apart from that placed transiently in the bins adjacent to said stalls.

In the drawings: Figure 1 is a top-plan view of so much of a car embodying my invention as is necessary to an explanation thereof, the roof being removed to expose the arrangement of partitions, mangers, water-tanks, feed-bins and bunks. Fig. 2 is a vertical, longitudinal section thereof on the correspondingly numbered line in the first figure; and Fig. 3, a vertical, transverse section on the line 3—3 of said first figure.

My car is of the ordinary form with tight external walls, and roofed to protect the animals from draft and exposure.

At the ends of the car are platforms, A, similar to those of the ordinary baggage or express car and of sufficient size for a person to stand upon and clean the stalls through trap-doors, hereinafter described.

In the ends of the car are doors, A', which will permit a person to pass from the interior of the car to the platforms or to gain access to the stalls from an adjacent car while the train is under way.

The car is lighted by means of windows, A<sup>2</sup>, opening into transverse compartments between the stalls, as presently explained. In the sides are doors, A<sup>3</sup>, wide and high enough to admit of the laying of a gang-plank for the convenient passage of stock, and opening into a middle compartment, B, of the car; this compartment, formed by the transverse partitions, b, being of sufficient size to admit of the storage therein of a supply of feed and for hanging up harness. In it are also provided sleeping accommodations for the attendants, which accommodations consist of hammocks or bunks, b', suspended from the walls and so constructed that, when not in use, they may be folded up against the roof or partition wall and will thus be out of the way. At both ends of this middle compartment are other compartments, B', containing the stalls for the stock which is to be shipped, formed by transverse partitions, b<sup>2</sup>. These stalls are so arranged that the stock stands lengthwise of the car, the stock in the stalls in the two extreme end compartments facing away from the ends toward the middle of the car, and so that the stock in adjacent stall compartments shall face each other.

Between adjacent stall compartments the stalls of which face each other, are smaller transverse compartments, B<sup>2</sup>, likewise formed by the partitions, b<sup>2</sup>, and lighted by windows, as before stated. From these compartments the mangers of the various stalls in the adjacent stall compartments are readily and conveniently accessible by means of openings closed by the trap-doors, b<sup>3</sup>, in the partitions, forming said compartments. In each of these transverse compartments between the stall compartments, is a water tank, B<sup>3</sup>, and a feed-bin, B<sup>4</sup>, which are intended to contain feed and water for immediate consumption.

For the purpose of convenient communication between the various compartments, a continuous passage-way, lengthwise of the car, is provided by means of door-ways, b<sup>4</sup>, in the various transverse partition-walls, which passage-way is so located that, along it communication with the end platforms may be had through the doors in the ends of said car. The openings into this passage-way from the middle compartment may be closed by doors, b, if so desired corresponding in position to

the doors which open upon the platform or to the aisles therefrom.

In cars of ordinary width there will be two stalls on one side and one on the other of this passage-way, to each stall compartment, or three stalls abreast and two stall compartments at each end of the middle compartment, the position of the stalls in the compartments at one end of the central storage-room being the reverse of that at the other end, but it is obvious that this arrangement can be varied as desired by properly varying the dimensions of the car, which may also necessitate that the interior arrangements be somewhat varied, so as to adapt it to the change, a thing that can, however, be readily done.

To reach its stall a horse will be led from the central compartment down the aisle or passage-way and when placed in the stall will stand with his head fronting the horse in the opposite stall,—the end row of stalls being arranged so that the horses or other stock will stand with their tails to the platform at that end.

To facilitate the operation of loading, movable stall partitions, C, are employed, which are constructed as follows: Cross-wise of the car and close under the roof are cross-bars or guides, C', one at each end of each stall compartment. Suspended from these transverse bars or guides are the hangers, c, which are so attached to the transverse rods as to permit of their being easily moved side-wise on said rods. To these hangers are fastened the horizontal slats, c', forming the longitudinal stall partitions.

Stall partitions constructed as above may be moved at will from one side of the car to the other so as to admit each horse from the aisle to his stall. When a stall is occupied it is of course necessary that the partition be fastened to prevent its moving sidewise along the guide-bars and also to prevent its swinging with the motion of the car from side to side, or when the horses lean against it, and this is done by means of straddling latches, c<sup>2</sup>, fastened to the ends of the car or to the transverse partitions behind the horses by means of a horizontal hinge; these brackets are so placed and shaped that when the partitions are in position a latch may be dropped down and will straddle the hanger and thus hold the partition securely in position.

The slats forming the longitudinal stall-partitions are made of any suitable material and are attached to the hangers, or uprights, in any suitable manner. This partition can be made of any desired height and so shaped as to prevent stock in adjacent stalls from interfering with each other, extending the full length of the stall-compartments and being made so high toward the head of the animals that they cannot reach over it, and not necessarily made of slats.

For feeding purposes I have provided a suitable manger, D, in each stall so situated as to be easily reached by the stock in the

stalls. Between and separating the mangers in adjacent stalls are the fixed dividing partitions, D', to keep the stock in adjacent stalls from interfering with each other, from biting and eating each other's feed. Preferably these partitions are made of open slat work, that they may interfere as little as possible with the passage of light, and become when the sliding partitions are in position, virtually continuations of the latter.

A feature of the mangers is the false bottom, d, hinged to the front of the manger so that it may be swung up, leaving the whole manger about midway of its height open for feeding hay; or, when desired may be swung down so as to form a bottom for the manger for feeding grain or a convenient support for a pail in watering and the like.

For convenience in cleaning the stalls trap-doors, E, are provided at the foot of the end walls of the car, and of the transverse partitions behind the stock, through which a hoe, rake, shovel or other implement may be inserted and the excrement, bedding, &c., be removed without entering the stalls themselves.

Having thus described the parts and arrangement of my car in detail I will now describe the manner in which it is loaded. A gang-plank is placed in the door-way of the middle compartment over which the stock is taken into the car. It being desired to place an animal in any stall, the longitudinal stall partitions are moved to the side of the car opposite to the stall to be filled; the animal is then brought into the stall-compartment through the middle compartment and the passage-way lengthwise of the car and is put into the place desired. The longitudinal stall partition closing this stall is then brought up into position and fastened by the latch. This sufficiently illustrates the principle of my invention, all stalls being filled in the same way.

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

1. In a stock-car, the combination, substantially as hereinbefore set forth, of the central compartment, the longitudinal alleys or passage-ways running therefrom to doors in the ends of the car, the stall compartments having sections arranged on each side of said passage-ways, transverse passages between said stall compartments, and longitudinally arranged laterally sliding partitions movable transversely of the car, whereby stalls are formed lengthwise of the car individually accessible to the attendants.

2. The combination, substantially as hereinbefore set forth, in a stock-car, of platforms at each end, doors opening therefrom into the car, passage-ways leading longitudinally therefrom along the length of the car, stall compartments having longitudinal sections on each side of said passage-ways, laterally sliding partitions for said compartments, and the trap-doors opening from the platforms into the end-stalls.

3. The combination, substantially as here-  
inbefore set forth, of the stall-compartments,  
the longitudinal passage-way on each side  
of which the stalls are arranged and the in-  
5 termediate transverse compartments having  
bins for food and water, and provided with  
openings giving access directly to the heads  
of the stalls at each side of said intermediate  
compartments.

10 4. The combination, substantially as here-  
inbefore set forth, in a stock-car, of the feed-  
mangers, the fixed partitions between each of  
said feed-mangers, the laterally sliding par-

titions adapted to be brought into register  
with said fixed partitions to form stalls length- 15  
wise of the car and in series thereacross, the  
transverse compartments separating the man-  
gers of one transverse series of stalls from  
the next, and traps through the walls of said  
transverse compartments for access to the 20  
mangers.

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Witnesses:

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