

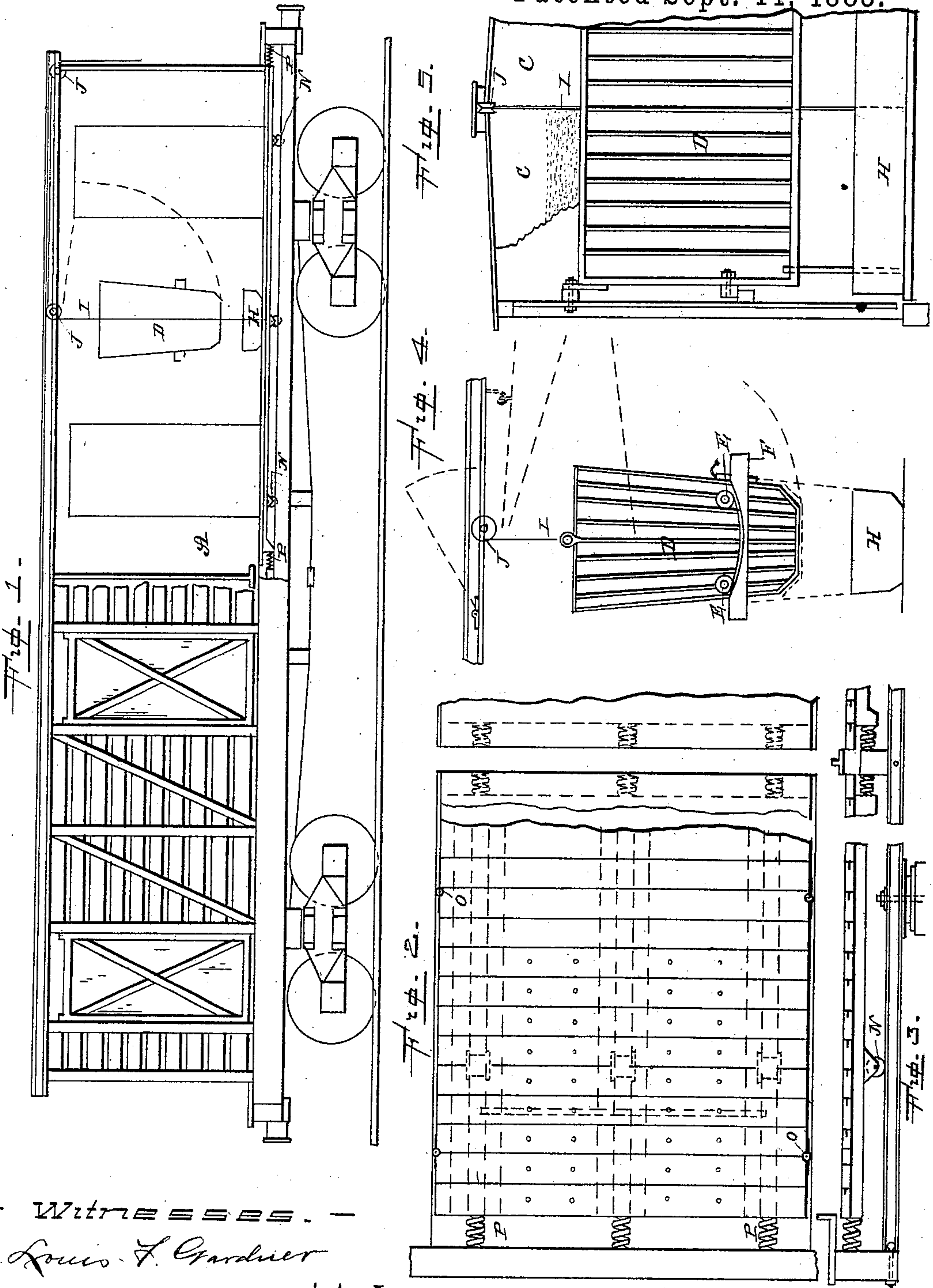
(No Model.)

A. W. CLIFFORD.

STOCK CAR.

No. 284,819.

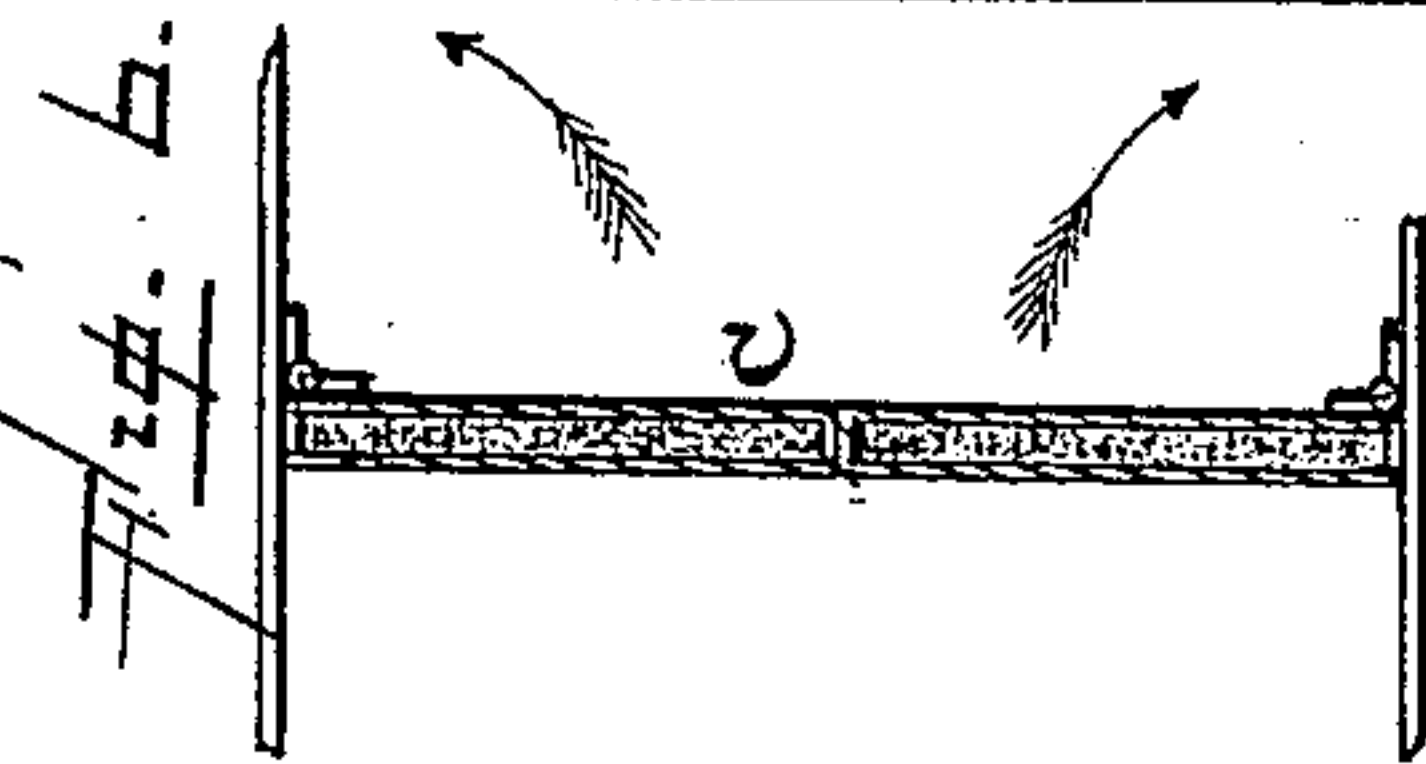
Patented Sept. 11, 1883.



— Witnesses. —

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# UNITED STATES PATENT OFFICE.

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## STOCK-CAR.

SPECIFICATION forming part of Letters Patent No. 284,819, dated September 11, 1883.

Application filed April 30, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, A. W. CLIFFORD, of Johnstown, in the county of Cambria and State of Pennsylvania, have invented certain  
5 new and useful Improvements in Stock-Cars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it,  
10 reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in stock-cars; and it consists, first, in a floor which is made in one, two, or more sections,  
15 and placed upon rollers, so as to have an endwise movement in the direction of the length of the car, in combination with suitable springs, which are placed at each end of the sections of the floor; second, in partition-doors which  
20 are placed, preferably, in the center of the car, and which are made hollow, so as to be filled with water, to be used for the stock during transportation; third, in a water-trough which is adapted to be raised upward and  
25 made to fit over the lower end of the feed-rack, so that it can be raised up out of the way when no longer needed for use; fourth, in a feed-rack which can be raised upward against the roof of the car when not needed, and which, when  
30 down in position, is supported in place by means of suitable cleats, which are secured to the sides of the car, and the pivotal bolts upon which the rack turns; fifth, in the arrangement and combination of parts, which will be  
35 more fully described hereinafter.

The object of my invention is to make the floor of a stock-car in sections, and make the sections movable endwise, so as to ease shocks on the sudden stoppages of the car, to allow  
40 of the ready and quick loading and unloading of the car, and to provide the car with suitable appliances which can be used while the stock are undergoing transportation, and then folded out of the way on the return trip, so as  
45 to allow the cars to be used for other purposes.

Figure 1 is a side elevation of my invention, partly in section. Figs. 2 and 3 are detail views of the floor. Figs. 4 and 5 are detail views of the racks and water-troughs. Fig.  
50 6 is a view of the hollow doors.

A represents the stock-car, of any desired length and width that may be preferred, and

which will be preferably provided with four doors upon each side, so as to allow of the ready loading and unloading of the car at any  
55 time and for any purpose. Where all or a portion of the stock have to be unloaded at any time during the journey, or when the end of the journey is reached, or in case of a collision, it can be quickly or readily done.

At or near the center of the car are two doors C, which are made to divide the car into two sections, and which doors are made hollow and provided with suitable means for filling  
60 them with water, and suitable means for conducting the water from the doors to the watering-troughs, so that the animals can be watered during transportation without the necessity of unloading the animals for this purpose alone. Where the cars are closed, these doors may be  
65 filled with ice, or any cooling mixture, and thus keep the air in the car sufficiently cool to preserve perishable articles during transportation. These doors especially fit the cars for the transportation of fruit and articles of  
70 a similar nature. These hollow doors divide the car into two sections, and the hay-rack and the water-trough divide each one of the two sections into two other sections, so that while the car is used in the transportation of  
75 cattle each one is divided into four sections, and each section has two doors leading into it, as shown in Fig. 1.

The hay-rack D is pivoted at its upper end upon short pivotal bolts, which pass through  
80 the side of the car, and is adapted to be raised upward at its lower end against the top of the car, so as to be out of the way when not in use. While the car is engaged in the transportation of cattle, this rack will be dropped  
85 downward; but when the car is being returned empty it will be raised upward against the roof of the car, so as to leave the car free for the transportation of merchandise of any kind. Upon each end of the racks will be journaled  
90 one, two, or more rollers, E, and when the rack is dropped down into position for the cattle to eat, these rollers rest upon the cleats F, having curved top edges, as shown. In order to lock the rack rigidly in place, a pin or pins are  
95 passed down through these cleats, so as to prevent the rack from swinging back and forth with the motion of the car.

The water-trough H is shaped so as to fit



over the lower end of the rack, and to be carried up against the under side of the top of the car with the rack. In order to make this trough vertically adjustable, so that it can be  
 5 lowered upon the floor for the cattle to drink from, and then raised against the roof, each trough has a rope, I, secured to it at any suitable point, and this rope passes up over suitable pulleys, J, journaled in the top of the car,  
 10 back or forward to the end of the car, where it can be operated by the brakeman or the person in charge of the stock. Whenever it is desired to water the animals, it will only be necessary to slacken the rope and lower the  
 15 trough down to the floor, and then conduct the water from the hollow doors through suitable hose to the troughs.

Instead of the perforated floor L, upon which the animals stand, being made solid as a part  
 20 of the car, in the usual manner, it is here made in two or more sections, and each section is supported upon friction-rollers N. These sections of the floor are made just wide enough to allow friction-rollers O to be journaled in  
 25 their sides or edges, and these rollers O bear against the sides of the car, so as to always enable it to move evenly. Upon the under side of each section of the floor will be placed suitable iron bands or bolts, which will bear  
 30 upon the tops of the rollers placed in the bottom of the car for the support of the sections of the floor, and these prevent the floor from being worn or injured. At each end of each section of the floor will be placed a suitable  
 35 number of springs, P, of any kind, and which springs receive the endwise movement of the sections of the floor in case of sudden stoppages, collisions, or other accidents to railroad-cars. The endwise movement of the sec-  
 40 tions of the floor compress the springs to a greater or less extent, and thus ease the shock upon the animals standing upon the sections of the floor, and prevent them from being injured, as would otherwise be the case. In order  
 45 to prevent the feet of the animals from being caught between the ends of the sections of the floor and the timbers of the cars, a suitable projecting shield, Q, is made to extend over

the springs at each end, and these shields prevent the feet from getting down into the cracks  
 50 and becoming injured.

I do not limit myself to the precise construction and arrangement of parts here shown and described, for these may be varied without departing from the spirit of my invention.  
 55

Having thus described my invention, I claim—

1. In a stock-car, the combination of two hollow doors, which serve to divide the car into two compartments, but which are adapted  
 60 to be opened, so as to leave all of the car clear, and which are filled with water, so as to serve as a reservoir from which to water the animals, substantially as shown.

2. In a stock-car, the hay-rack, which extends from one side of the car to the other,  
 65 and which is pivoted at its upper ends directly to the sides of the car, and which is adapted to be raised up out of the way, substantially as described.  
 70

3. The combination, in a stock-car, of a hay-rack which extends entirely across the car, and which is pivoted at its upper ends  
 75 directly upon the sides of the car, with the supports F and suitable friction-wheels, substantially as set forth.

4. In a stock-car, a floor which is made in two or more sections, each section having an  
 80 endwise movement, substantially as specified.

5. In a stock-car, a floor divided into two  
 85 or more sections, in combination with suitable friction-rollers and springs placed at the end of each section of the floor, substantially as shown and described.

6. The combination, in a stock-car, of a  
 90 hay-rack which is pivoted at its upper ends, a trough which is adapted to be raised and lowered in relation to the rack, and suitable cords and pulleys, the parts being arranged to operate substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ALFRED W. CLIFFORD.

Witnesses:

D. J. JONES,

GEO. MARSDEN.