

J. A. WOOD.
STOCK-CAR.

No. 172,238.

Patented Jan. 11, 1876.

Fig. 1.

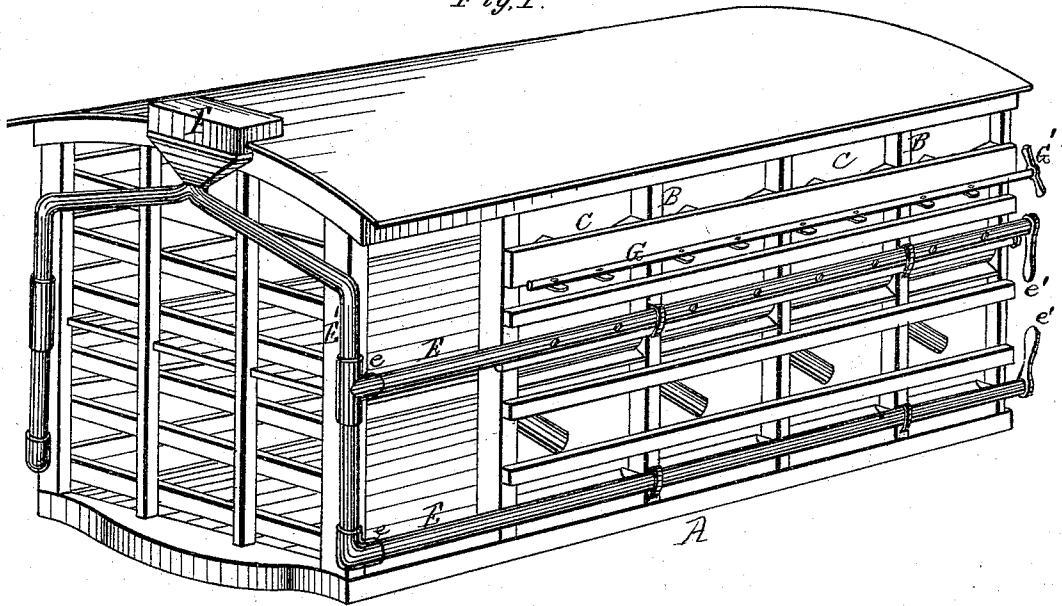


Fig. 2.

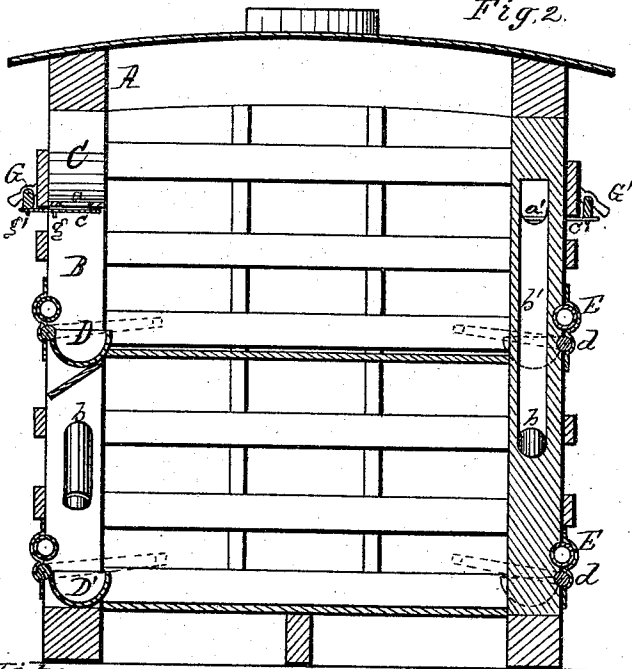
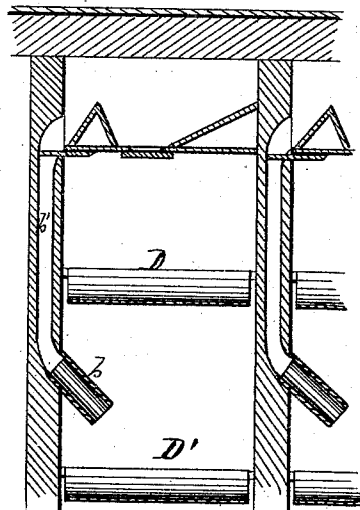


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOSEPH A. WOOD, OF JERSEY CITY, NEW JERSEY, ASSIGNOR TO CHARLES
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IMPROVEMENT IN STOCK-CARS.

Specification forming part of Letters Patent No. **172,238**, dated January 11, 1876; application filed
December 17, 1875.

To all whom it may concern:

Be it known that I, JOSEPH A. WOOD, of Jersey City, county of Hudson, State of New Jersey, have invented a new and useful Improvement in Stock-Cars, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, making part of this specification, in which—

Figure 1 is a perspective view of a stock-car body, having my improvements applied. Fig. 2 is a transverse vertical section through the same; and Fig. 3 is a partial longitudinal section through the side studding, showing the arrangement of the feed boxes or hoppers and feed-spouts.

Similar letters of reference denote corresponding parts wherever used.

My invention relates to a novel arrangement of devices in connection with a stock-car, for facilitating the watering and feeding of the stock, and for preventing freezing or otherwise obstructing the water-supply pipes; and the invention consists in a novel arrangement of water-supply pipes in connection with the water and feed troughs, whereby they may be turned away from the feed-troughs and emptied of their contents to prevent freezing, leaving the troughs free to be independently emptied of the water discharged therein by said pipes, and thereby adapted to receive the feed, as hereinafter explained.

In the accompanying drawing, A represents the car-body, which, in its general form and construction, may be the same as any of those now in use for the same purpose, the drawing representing a double-deck car, adapted for the transportation of smaller stock, such as hogs, sheep, &c., but my improvements, as will be apparent from the following description, are equally well adapted to single-deck car for carrying larger stock. Between the car-frame studs or uprights B, at their upper ends, are arranged a series of hoppers or feed-boxes, C, the studs forming the ends of said boxes, the bottoms of which are made in double-hopper form, as shown in Fig. 3, the openings *a a'* therein communicating, one with the upper and the other with the lower feed-trough, hereinafter described. The studs B are made hollow or double, as shown at *b'*,

to form or accommodate a down-spout passing by the upper feed-troughs D, and communicating by means of an inclined nozzle or chute, *b*, with the lower trough D', for discharging the feed into the latter at or near midway of its length. The troughs D D' are arranged longitudinally of the car, between the uprights or studs B, and all of those in the same series are connected at their outer edges with a rock-shaft, *d* or *d'*, mounted in suitable bearings, applied to the outer face of the studs B, and this shaft, being operated by a crank or lever at one end of the car, serves to dump the troughs for discharging their contents, or to return them to position to be refilled. Just above the rock-shaft of each series of feed-troughs is arranged a horizontal water-pipe, E, also recessed in or mounted in suitable bearings upon the outer faces of the studs or posts B, said pipes being provided on their lower faces with a series of perforations or small outlet-tubes, through which their contents may be allowed to escape into the troughs D D'. One end of each of these pipes is journaled in a T-coupling, *e*, connecting it with down-pipe E', which communicates with a water-tank, F, for supplying the pipes E, the connection of the latter with the couplings *e* being such as to permit the free rotation of the pipes by means of a crank handle or lever, *e'*. By this arrangement it will be seen that the supply-pipes, being adapted to rotate or to be rocked independently of the trough after the water is let into them, they are made to discharge it into the trough until the stock is fully supplied, when, by partially rotating the pipe by means of the lever *e'*, they may be turned so as to discharge their contents outside of the trough upon the ground, and the troughs themselves can immediately be emptied, and thereby adapted to receive the feed. The attendant is thereby saved the necessity of going up on the car to shut off the supply of water before emptying the trough, and the pipes E being in position to empty themselves after the supply of water is shut off, all danger of their freezing up or becoming otherwise obstructed and rendered useless is obviated. The openings *a a'* in the bottoms of the hoppers or feed-boxes C are

covered by valves *c c'*, arranged under the hopper-bottoms and pivoted at *g* thereto, (see Fig. 2,) and arms *g'*, extending from said valves to the outer face or wall of the car-body, are connected with a horizontal reciprocating bar, *G*, which at one end is provided with a handle or lever, *G'*, by means of which the attendant standing upon the platform can simultaneously operate all the valves for supplying food to the stock, both in the upper and lower compartments. The openings *a* communicate either directly or by spouts with the upper troughs *D*, and the openings *a'*, through the down-spouts *b b'*, described, with the lower troughs *D'*. The tank *F* may have any usual form and arrangement, and is supplied with the usual means for cutting off the supply of water from the pipes, such means being ordinarily placed under the control of the attendant on the top of the car.

The operation is as follows: The troughs being thrown down into position for watering the stock, and the pipes *E* turned into position for discharging their contents into the same, the supply of water is let on and flows into the troughs until the stock is fully supplied, when the pipes *E* are partially rotated, so as to discharge the water outside the troughs upon the ground. The troughs *D D'* are now emptied of their contents in the manner explained, and returned to proper position for receiving the grain or other food, when the attendant operates the valves *g*, through the medium of the rod or bar *G*, after which he is at liberty to return to the top of the car for shutting off the supply of water to the pipes *E*, which, retaining the position last described, are allowed to empty themselves, and are thereby prevented from freezing and being rendered useless. The labor of the attendant in watering and feeding the stock is greatly

facilitated; the necessity of frequent trips to and from the top of the car being obviated. The arrangement of the pivoted valves *g* underneath the hopper-bottoms adapts them to swing clear of the latter, and obviates all danger of their being caught and prevented from being closed by the descending corn or other food, a difficulty frequently experienced in the use of reciprocating slide-valves operating between fixed or rigid ways. The sizes of the pipes *E* and of the discharge-outlets therein relatively to the supply-pipes *E'* are such as to enable the latter to readily fill the pipes to both the series of troughs on the one side of the car, a similar arrangement supplying those on the opposite side.

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

1. The combination, with the dumping-troughs *D*, of the independently-rocking water-pipes, arranged and operating substantially as described.

2. The rocking pipes *E*, mounted in suitable bearings above the feed-troughs and jointed to the supply-pipes, substantially as described, whereby said pipes can be made to discharge their contents into the troughs or allowed to empty themselves on the ground, as set forth.

3. The combination of the down-spouts *b b'*, which supply the feed-troughs *D'*, with the vertical frame posts or studs *B* of the car, substantially as described.

In testimony whereof I have hereunto set my hand this 19th day of December, A. D. 1875.

JOSEPH A. WOOD.

Witnesses:

W. H. CHADDOCK,
HENRY S. WHITE.