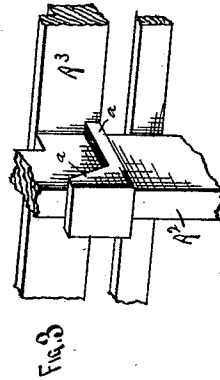
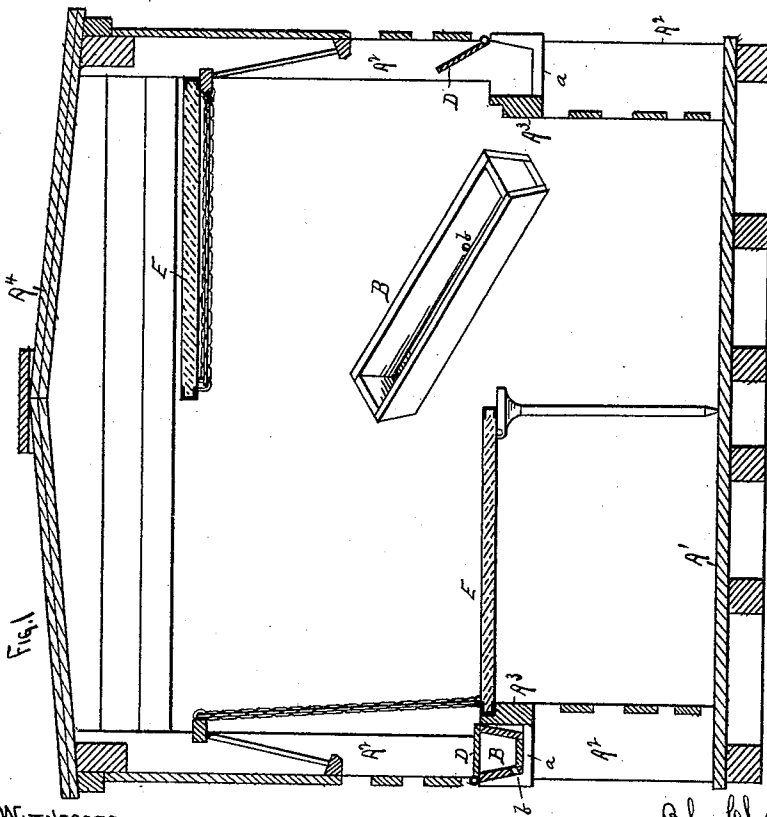
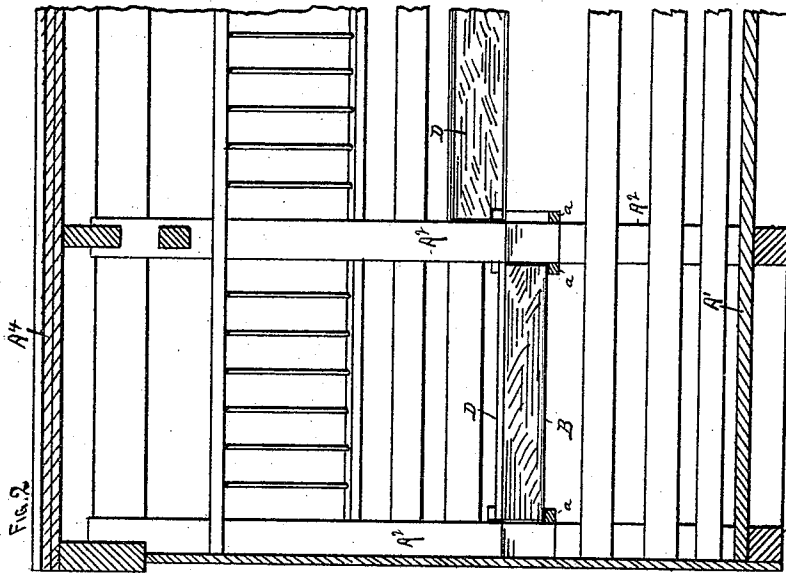


(No Model.)

B. C. HICKS.
WATERING TROUGH FOR STOCK CARS.

No. 449,622.

Patented Mar. 31, 1891.



WITNESSES.
W. B. ...
C. H. ...

Bohn Chapin Hicks
INVENTOR. BY
Charles H. Woodward Atty.

UNITED STATES PATENT OFFICE.

BOHN CHAPIN HICKS, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR, BY
MESNE ASSIGNMENTS, TO THE HICKS STOCK CAR COMPANY, OF
CHICAGO, ILLINOIS.

WATERING-TROUGH FOR STOCK-CARS.

SPECIFICATION forming part of Letters Patent No. 449,622, dated March 31, 1891.

Application filed March 18, 1890. Serial No. 344,294. (No model.)

To all whom it may concern:

Be it known that I, BOHN CHAPIN HICKS, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Watering-Troughs for Stock-Cars, of which the following is a specification.

Hitherto stock-cars have been provided with watering-troughs of two general types. The troughs have been either permanent immovable fixtures to the car, or else have been mounted so as to swing or turn to enable their contents to be discharged and for cleansing purposes. The objections to such tilting or swinging troughs consist in their liability to get out of order, their initial expense, and the difficulty in cleaning them when more than usually dirty.

In accordance with the present invention the watering-troughs are wholly unattached to the car, so that they can be wholly removed; but when in position in the car they are securely and safely maintained in place. Hinged lids are provided for the troughs to prevent their fouling, and these hinged lids, in addition, constitute a portion of the floor or deck when the car is utilized as a double-deck car for the transportation of animals like sheep or swine.

The improvements are illustrated in the accompanying drawings, wherein—

Figure 1 is a vertical cross-section of a stock-car provided with the present improvements. Fig. 2 is a vertical longitudinal section of a portion of one end of the car; and Fig. 3 is a perspective view from the outside of a portion of one of the side posts and beltry-rails, showing the construction of the trough-support.

A¹ is the floor-frame, A² the vertical side posts or stanchions, A³ the horizontal belter-rails, and A⁴ the roof, of a stock-car of the ordinary construction, except that the lower parts of the side posts are wider than usual to adapt them to support double-deck sections, which are preferably of the construction set forth in my patent No. 344,044, dated June 22, 1886, to which form of car the present im-

provements are particularly applicable. The improvements, however, may be applied to any form of stock-car now in use. I do not, therefore, wish to be limited to any particular construction of the car itself, the construction shown being merely for the purpose of conveniently illustrating the present improvements.

Between each pair of the side posts A², or between any required number of pairs, are located the removable watering-troughs B, supported therebetween in any suitable manner, but preferably by simple cleats *a*, attached to and embracing the outer faces of the side posts, and on which the ends of the troughs rest with their upper edges about even with the upper edge of the belter-rail A³, as shown. The troughs, it will be observed, are located outside of the belter-rails.

These troughs may be constructed in any desired manner. They may be mere wooden boxes, as shown in the drawings, or they may be wholly of metal, or partially of metal and partially of wood, or of the construction shown in my pending application for a patent, Serial No. 329,983, filed November 12, 1889. As shown in the drawings, the trough is made slightly tapering, or smaller at the bottom than at the top, so that it can be easily inserted into and removed from between the side posts. Alongside the outer edge of each trough a lid or cover D is hinged to the car-body, as shown, which can be folded down over the trough when the latter is not in use, to protect it from manure and other foreign matters. When the troughs are employed in double-deck stock-cars, the covers fulfil the double function of protecting the interior of the troughs and also of bridging the gaps that would otherwise be left along the edges of the deck between the side posts, thereby preventing the feet of the animals getting into the troughs. At the left of Fig. 1 one of the double-deck sections E is shown in its lowered position with one of the covers D in its closed position, showing that there is no gap or opening between the deck and the sides of the car. On the opposite side of the car the deck-section E is shown elevated, the lid D raised, and

the trough removed. In Fig. 2 the belter-rail A³ is removed, and at the left one of the troughs B is shown in place, while at the right the lid is shown raised and the trough removed. By this simple means a trough is provided which is very easily removed for cleaning or for any other purpose.

Water is supplied to the troughs by any suitable system of piping, and in each trough a small waste tube or opening *b* is formed, so that the troughs will gradually empty themselves when the inflow ceases. The inflow-piping furnishes a more copious supply than the waste-pipe can carry away, so that an ample supply of water is assured.

I claim as my invention—

1. In a stock-car, watering-troughs located within the spaces between adjacent side posts or stanchions and supported removably therebetween, in combination with removable double-deck sections located when in position for use substantially in the same horizontal plane with said troughs, the outer longitudinal edges of said deck-sections being wholly

inside said side posts, whereby spaces are left between said side posts which are not covered by said deck-sections, and covers or lids pivotally connected to the frame-work of the car, which swing over said troughs and form shields thereto, said covers or lids also bridging said spaces between the side posts along the longitudinal edges of said double-deck sections, substantially as set forth.

2. In a stock-car, watering-troughs located within the spaces between adjacent side posts or stanchions and supported removably therebetween, in combination with covers or lids which swing over said troughs and which are pivotally connected to the frame-work of the car, substantially as set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

BOHN CHAPIN HICKS.

Witnesses:

C. N. WOODWARD,
E. J. EDWARDS.