

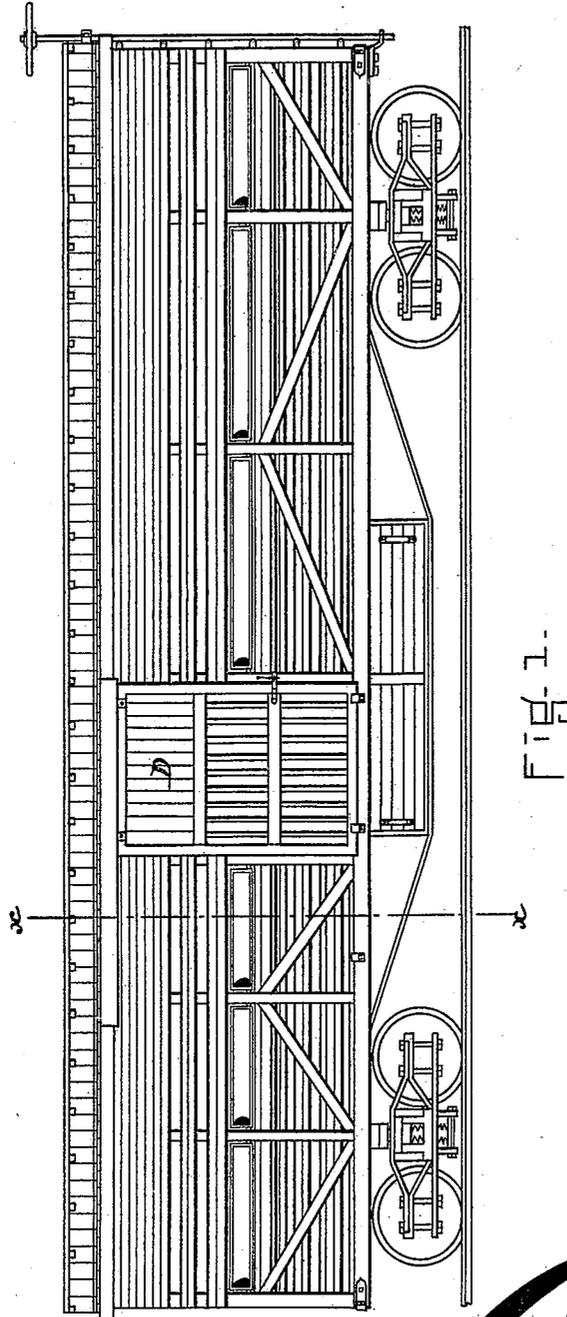
(No Model.)

5 Sheets—Sheet 1.

G. D. BURTON.
STOCK CAR.

No. 427,043.

Patented May 6, 1890.



WITNESSES.

Chester Wagon
Henry Good

INVENTOR.

G. D. Burton

(No Model.)

5 Sheets—Sheet 2.

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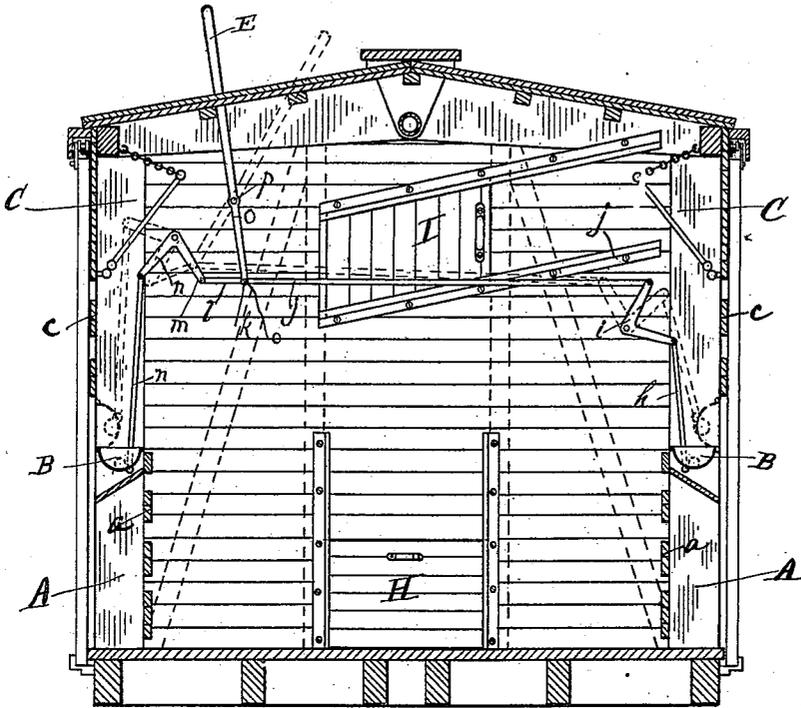


FIG. 2.

WITNESSES:

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G. D. Burton

(No Model.)

5 Sheets—Sheet 3.

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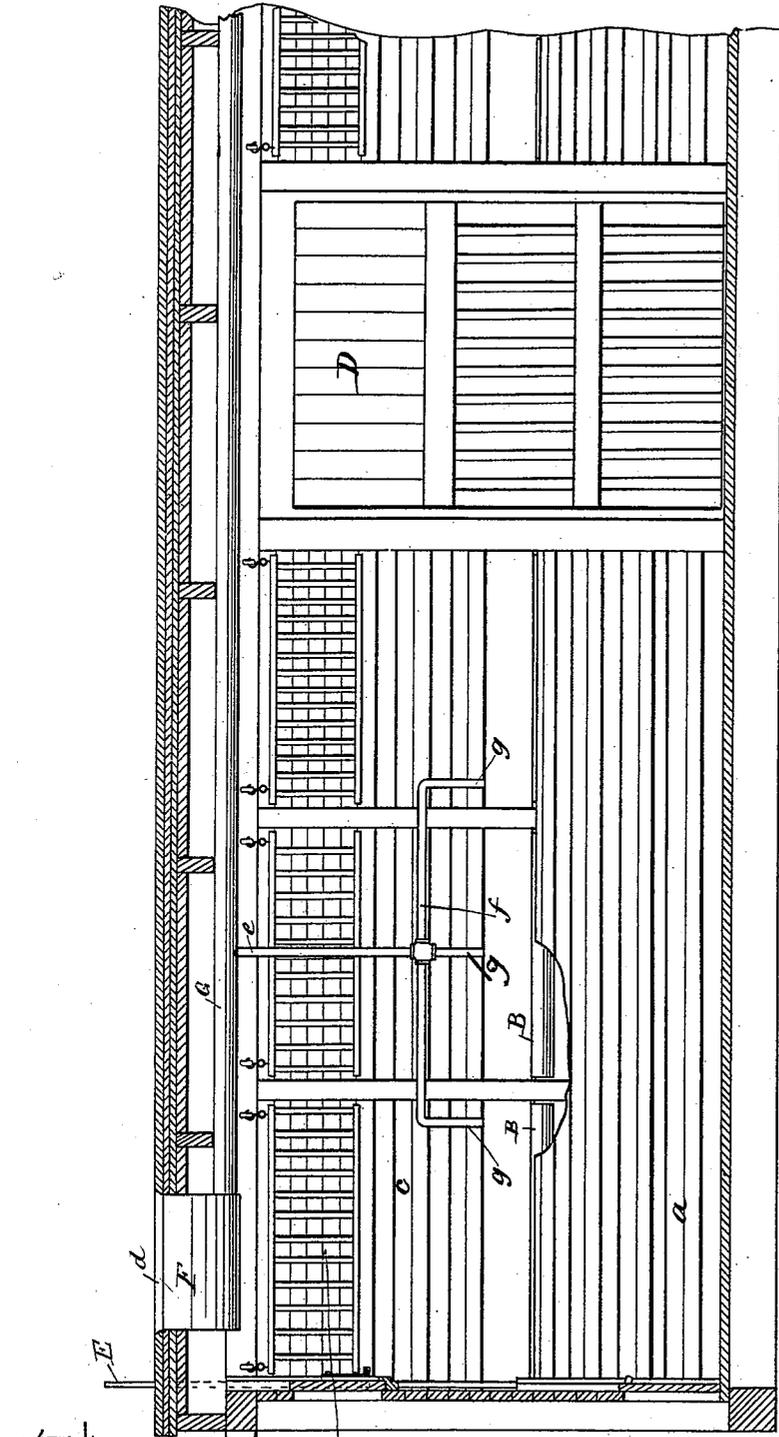


FIG. 3

WITNESSES.
Chester H. ...
Henry ...

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G. D. Burton

(No Model.)

5 Sheets—Sheet 4.

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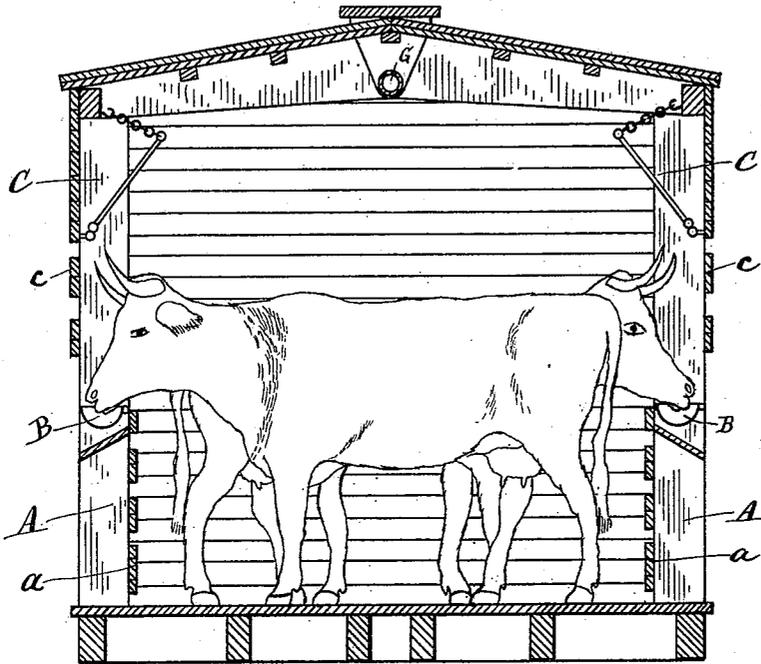


Fig. 4.

WITNESSES.

Chester Warr
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G. D. Burton

(No Model.)

5 Sheets—Sheet 5.

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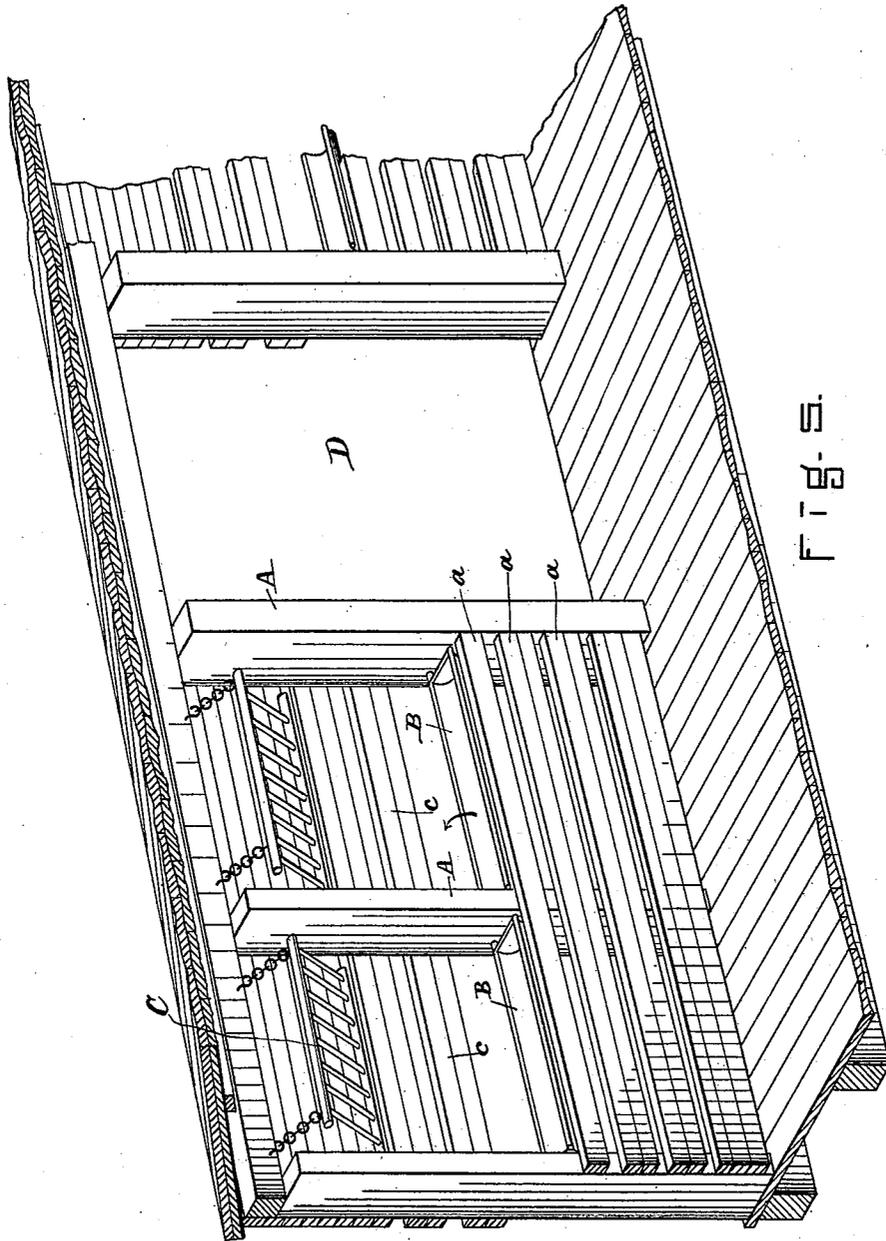


FIG. 5.

WITNESSES.
Chester Harr
Henry Good

INVENTOR.
G. D. Burton

UNITED STATES PATENT OFFICE.

GEORGE D. BURTON, OF BOSTON, MASSACHUSETTS.

STOCK-CAR.

SPECIFICATION forming part of Letters Patent No. 427,043, dated May 6, 1890.

Application filed October 4, 1888. Serial No. 287,200. (No model.)

To all whom it may concern:

Be it known that I, GEORGE D. BURTON, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Stock-Cars, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to improvements in stock-cars, having all necessary devices and appurtenances for insuring the comfort and preservation of the animals while in transit.

My invention consists in certain novel details of construction, arrangement, and combination of parts, all of which will be fully described hereinafter, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a side elevation showing my invention complete. Fig. 2 is a transverse vertical section illustrating the interior of the car, the peculiar arrangement of the frame-work thereof, and showing the water-reservoir, the feed-troughs, hay-racks, and a system of levers properly arranged, whereby the said feed-troughs may be dumped from the roof of the car. Fig. 3 is a longitudinal vertical section with parts broken away, showing the interior of one side of the car and more particularly the arrangement of the water-reservoir, its water-distributing pipes to the feed-troughs, and the construction of the side of the car. Fig. 4 is a view similar to Fig. 2 and taken on the line *x x* of Fig. 1. Fig. 5 is an interior perspective view, with parts broken away, of one side of my improved stock-car.

Referring more particularly to Fig. 5 of the drawings, it will be seen that, instead of the usual equilateral rectangular studs which are used as the side uprights of the ordinary stock-cars, I employ a rectangular oblong timber A, placed in such manner that its width is in line with the width of the car. For the sake of illustration, suppose that the posts heretofore employed were four by four inches. Then the dimensions of the style of upright or stud herein used would be approximately from two to three inches by nine inches, each stud being so placed that its smallest dimension is in line with the length of the car, while its greatest dimension or width is in line with the width of the car. By this construction the upper extremity affords a

wide supporting-surface for the frame-work and plate of the roof, and the usual width of the timber gives a space between its outer and inner edge quite as wide as a feed-trough of ordinary dimensions. These uprights or studs are placed at certain distances apart, as shown, along the side of the car, which distance is equal to the length of a trough. It will also be seen that two of these studs serve as the jambs of the central doors.

On the interior of the car the siding or slats *a a* extend from the floor to the level of the troughs, which slats are placed at suitable distances apart, leaving spaces between them. On the exterior of the car the siding extends from the roof down to near the top line of the feed-troughs B, and consists of slats *c c*, which latter terminate far enough above the horizontal level of the feed-troughs to permit the insertion of food from the exterior of the car and to allow a rocking motion of the feed-trough in their seats.

By means of the construction described I am enabled to obtain a sufficient space for the feed-troughs B B and at the same time to maintain the usual width of the old style of stock-car. Again, since the feed-troughs are located outside the vertical plane occupied by the interior of the car, the feed-troughs may be dumped outwardly and their contents fall without striking the side of the car.

Between adjacent studs A A is suitably journaled a feed-trough B, which is arranged to rock upon its journal in the direction of the arrow shown in Fig. 5. Each feed-trough B is adapted to dump outwardly, and immediately above each trough is located a hay-rack C of suitable construction.

The journal supporting the rocking feed-troughs B B may pass uninterruptedly from one side of the central door along parallel to the feed-troughs to the end of the car and through the intermediate studs A. By these means one journal may serve as a support for two or more feed-troughs. However, as the central door D intervenes on each side of the car it will be obvious that on either side of the car there will have to be two separate feed-trough journals, each extending from the central door D to the end of the car. Thus it will be seen that as there will be four independently-movable journals in the whole

car the operator would have to make four independent operations in order to dump all the feed-troughs. Since such procedure would occupy much time and labor, I provide means whereby the single movement of the lever all the feed-troughs within the interior of the car between the doors and each end may be simultaneously and outwardly dumped. This is accomplished by means of the operator grasping and shifting the hand-lever E, which projects out through the roof of the car. This lever E is connected by a suitable system of levers and cranks with the feed-trough journals, so that by a movement of the hand-lever E the system of levers serves to transmit motion to the feed-trough journals, actuating the same and dumping the troughs on both sides of the car at once. In Fig. 2 I have shown such a system of levers and cranks, in which *h* is a link or rod connecting a crank-arm attached to the journal of the right-hand feed-trough B, with one arm of the elbow-lever *i*, pivoted to the end of the car, whose other arm is connected by links or rods *j* *l* (pivoted together at *k*) to one arm of an elbow-lever *m*, also pivoted to the end of the car, and whose opposite arm is connected by a link or rod *n* with a crank-arm secured to the journal of the feed-trough B on the opposite side of the car. The handle E is pivoted at *p* to the end of the car, and its lower end *o* is pivoted at the point *k*, where, as before stated, the two rods *j* and *l* are pivoted together.

Referring now to Figs. 2, 3, and 4 of the drawings, and more particularly to Fig. 3, F designates a water-reservoir located under the walking-plank and supported by the timbers of the roof of the car, and is provided, preferably, with a hinged lid *d*, flush with the walking-plank, whereby when said lid is raised a crane may be inserted therein. This water-vessel may be of any suitable dimension or construction and communicates with the overhead horizontal supply-pipe G, which runs parallel with the walking-plank on the interior of the car near the roof. Water is conducted from this supply-pipe G to the various feed-troughs B B by means of the intermediate pipes *e f g*. The pipes *ee*, which pass perpendicularly down from the supply-pipe G to the vicinity of the feed-troughs B B, are curved to conform with and be attached to the walls of the car, so that they may be in an out-of-the-way position and therefore free from injury.

As will be seen by reference to Fig. 2, the end of the car is closely boarded up, as is usual in the box-car, and is provided with a lower door H and an upper door I, both doors covering openings in the end of the car and arranged in different horizontal planes. Through the door H may be introduced heavy freight—such as railroad-iron—and lumber may be inserted through the upper door I, both the doors being of any suitable construction. This construction is provided, in order that the car

may be rendered convertible for carrying either live or dead freight, and to meet this requirement the feed-troughs, hay-racks, feed-trough-dumping mechanism, and the water-pipes are so arranged as to be either normally out of the way or capable of being shifted back into an out-of-the-way position.

This construction of the car permits the cattle to be fed and watered within. No interior obstructions exist by this arrangement of the feed-troughs B B and the studs A and siding *ac*. The troughs are substantially on the outside of the car and may be dumped outwardly and from the roof, so that their contents will pass to the ground without touching the interior of the car, and the arrangement of the water-distributing apparatus is convenient and specially advantageous.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A stock-car provided with studding of a width equal to or greater than the width of the feed-troughs, siding secured to the inner side thereof from the floor to the level of the trough, siding secured to the outside thereof from the roof downward to a line a distance above the line of the inner siding equal to the width of the trough, and a trough located wholly between the studding and pivoted at the outer edge thereof on a line with the top of the inner siding, all combined and operating as set forth.

2. A stock-car provided with studding of a width equal to or greater than the width of the feed-troughs, siding secured to the inner sides thereof from the floor to the level of the trough, siding secured to the outside thereof from the roof downward to a line a distance above the line of the inner siding equal to the width of the trough, and a trough located wholly between the studding and pivoted at the outer edge thereof on a line with the top of the inner siding, a deflector located between the studding below the trough, and a hay-rack pivoted between the studding above the trough.

3. A stock-car provided with outwardly-tilting troughs mounted on the opposite sides of the car, and with a lever-shift mounted on the inner face of the end of the car for shifting said troughs simultaneously, said lever-shift consisting of two bell-cranks, an operating-lever fulcrumed on the end of the car and projecting through the roof thereof, rods coupling said lever on opposite sides of the fulcrum with the respective bell-cranks, and the rods connecting the said bell-cranks with the respective troughs, substantially as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 19th day of June, A. D. 1888.

GEO. D. BURTON.

Witnesses:

F. R. HARDING,
W. M. NASH.