

(No Model.)

3 Sheets—Sheet 1.

J. M. BURTON.
STOCK CAR.

No. 408,691.

Patented Aug. 13, 1889.

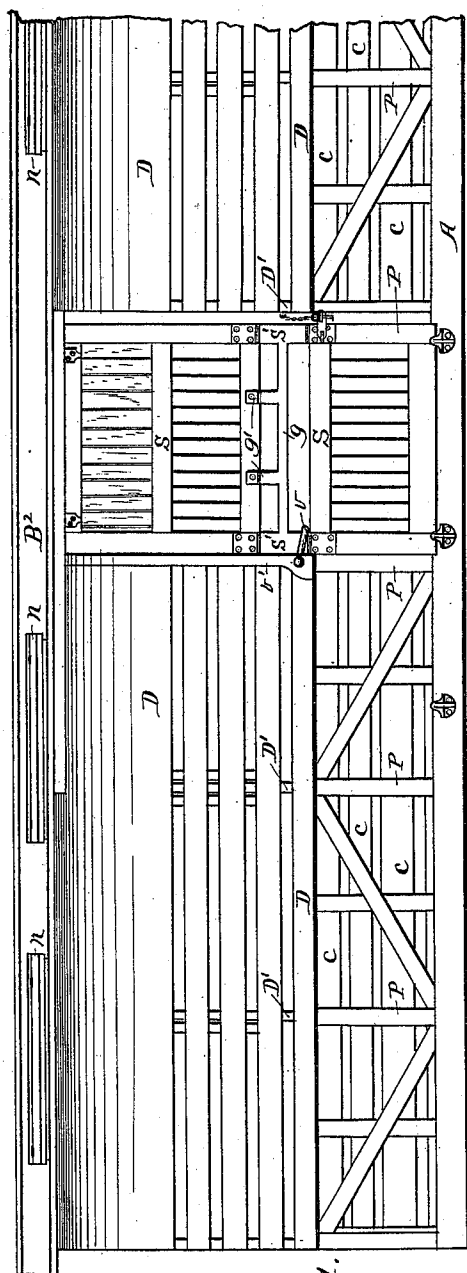


Fig. 1.

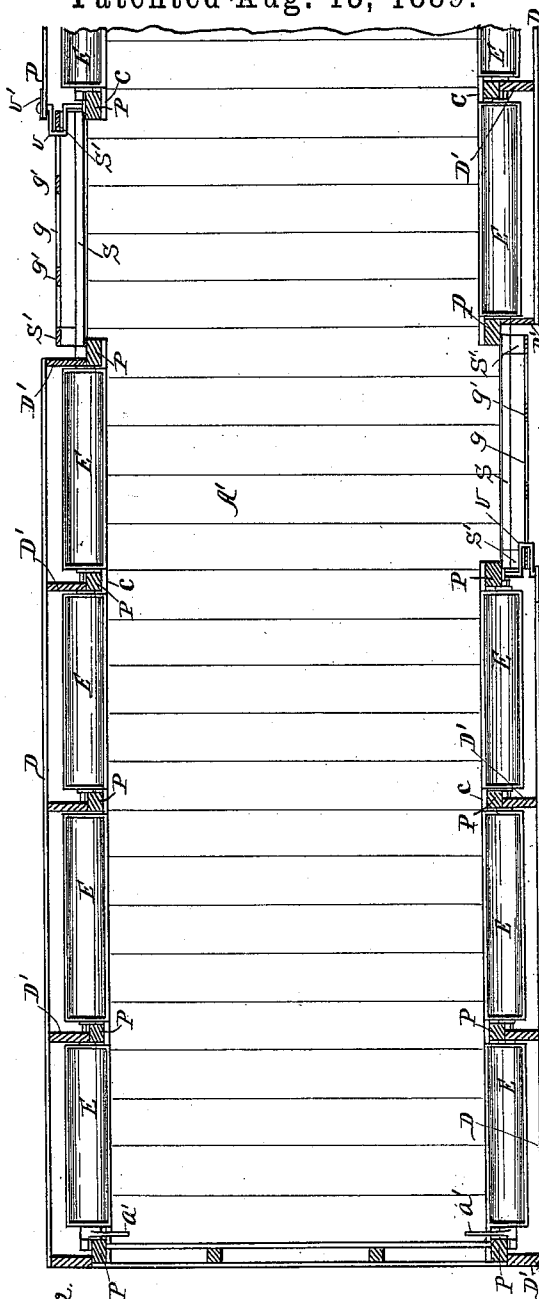


Fig. 2.

Witnesses,
W. W. Whipple
B. B. Cushman

Inventor,
John M. Burton
By Wm. Hutchins
Atty.

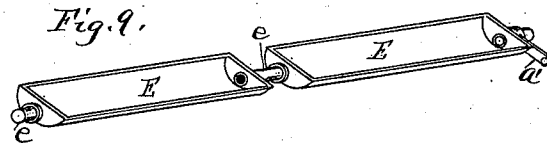
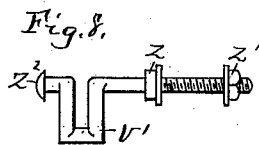
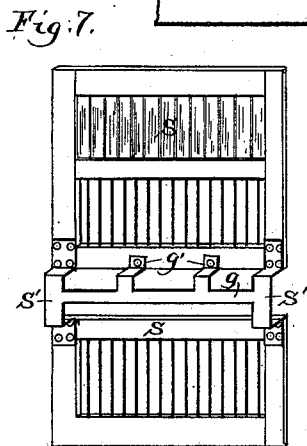
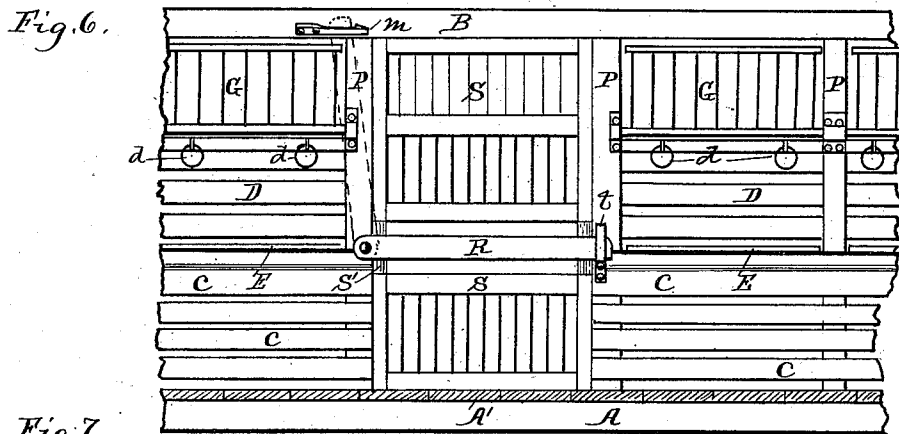
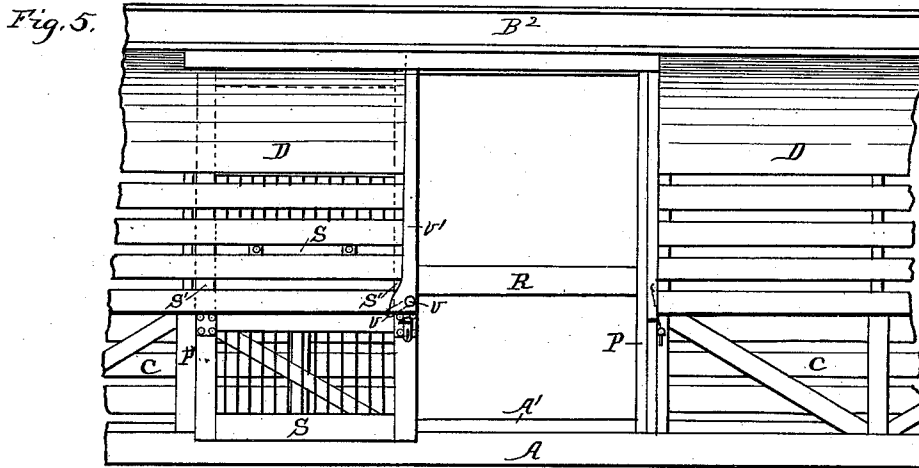
(No Model.)

3 Sheets—Sheet 3.

J. M. BURTON.
STOCK CAR.

No. 408,691.

Patented Aug. 13, 1889.



Witnesses.
W. G. Whipple
R. L. Lamm

Inventor,
John M. Burton.
By *W. J. Hutchins*
Atty.

UNITED STATES PATENT OFFICE.

JOHN M. BURTON, OF WICHITA, KANSAS.

STOCK-CAR.

SPECIFICATION forming part of Letters Patent No. 408,691, dated August 13, 1889.

Application filed September 24, 1888. Serial No. 286,149. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. BURTON, a citizen of the United States of America, residing at Wichita, in the county of Sedgwick and State of Kansas, have invented certain new and useful Improvements in Stock-Cars, of which the following is a specification, reference being had therein to the accompanying drawings and the letters and figures of reference, thereon forming a part of this specification, in which—

Figure 1 is a side elevation of the car, having one end broken away. Fig. 2 is a horizontal longitudinal sectional plan view of the car immediately above the watering-troughs. Fig. 3 is a cross-sectional elevation of the car near one end, looking toward the end of the car. Fig. 4 is a similar view through the car, near its center part. Fig. 5 is an exterior side view of a portion of one side of the car and of a door, showing the door open. Fig. 6 is an interior view of a portion of one side of the car and one door, representing the door closed. Fig. 7 is a detailed perspective view of one of the car-doors. Fig. 8 is a detailed view of a cranked tie-bolt of the car, and Fig. 9 is a detailed perspective view of a pair of connected watering-troughs of the car.

Referring to the drawings, A represents the car-sills, and A' the floor upon said sills.

P represents the posts of the car, which form a part of the frame. B represents plates upon said posts, which form supports for the side parts of the car-roof, and B' represents carlings arranged crosswise between plates B and form a part of the car frame-work to support the center part of the car-roof; and B² represents the car-roof.

The lower side parts of the car are inclosed by means of strips C, secured on the inner part of posts P, and arranged a short distance apart, as shown, for ventilation. Short intermediate posts and braces are arranged, adjacent said strips, between posts P, giving strength to the car. (See Fig. 1.)

D represents hoods, which are secured to the outer upper side parts of the car, excepting at the door-spaces, and consist of board sheathing closely fitted along their upper part, meeting the car proper immediately below the roofing, and of strips arranged a short distance apart along their lower part,

and are secured to the outer part of the posts P, by means of ribs D', as shown, at each post, excepting the door-posts at the side where the doors slide, and at said door-posts they are secured at their upper part by means of cut-away ribs, and at their lower part by means of cranked tie-bolts V, as shown in Figs. 1, 2, 4, and 8, which bolts are pivotally arranged so their cranked part will hang by gravity. The heads Z² of said bolts are made to occupy as little space as possible, and, as the bolts are arranged through their respective holes in the upwardly-extending straps or bands V' on the hoods D, (see Figs. 1 and 4,) said heads rest against the outer part of said bands, forming shoulders to tie the hoods in position at such places. The inner parts of said bolts are arranged through the door-posts, as shown, with their collar Z (see Fig. 8) and a washer resting against said posts, (see Fig. 4,) and a nut and washer Z' turned on their inner screw-threaded end, which secures them to their posts, said washer and nut Z' being countersunk, to be out of the way inside the car.

Between posts P about the sides of the car, excepting at the door-spaces, and above the lower inclosure C and within the hoods D, are arranged a system of metal watering-troughs E at a suitable height to accommodate stock to take water during transportation, and are mounted on trunnions e, (see Fig. 9,) which are boxed to posts P. (See Fig. 2.) The intermediate trunnions of said troughs are hollow, and arranged, connecting said troughs, so that a supply of water may pass from one trough to the other through said connections to equalize the supply through each connected set of troughs. When in use, said troughs are held in an upright position, as shown in Fig. 3, also Fig. 2, in which position water is supplied to them for watering the stock. Surplus water after the stock is supplied is emptied from the troughs by turning them on their trunnions, causing the water to be dumped outward at the side of the car from beneath the hoods D. The mechanism for turning said troughs is shown in Fig. 3, and is operated from the top of the car by means of a hand-lever a, having its upper end extending through a slot in the car-roof, and is connected with levers a' of the end trunnions of the

troughs (see Figs. 3 and 9) at either side of the car through the medium of rods a^2 and a^3 and bell-crank levers a^4 and a^5 , which are arranged at the end of the car, as shown, and are constructed in duplicate at either end of the car. By throwing lever a from the position shown in Fig. 3 to its extreme opposite position the intermediate rods and bell-cranks will be operated to raise levers a' and turn troughs E from the position shown in Fig. 3 to the position shown in Fig. 4.

F represents girths arranged about the inner sides of the car, excepting at the door-spaces, between posts P above troughs E , as shown, and are provided with a series of tie-rings d , for securing domestic stock during transportation. (See Fig. 6.)

G represents hay-racks, from which to feed stock during transportation, and are hinged to girths F and posts P at their lower part (see Figs. 3, 4, and 6) and held when let out at their top part by chains, as shown, and when folded by means of catches d' . (See Figs. 3 and 4.) Hay is introduced to said racks through doors n in the top of the car. (See Figs. 1, 2, and 3.) At each section throughout the sides of the car, except the door-spaces and the sections adjacent the doors at the side, the doors slide back. The entire space between said racks and the sheathing of hoods D is utilized for hay, a slanting bottom f being arranged outside the girths F for supporting the hay, as shown at the right side in Figs. 3 and 4. At the sections mentioned, adjacent the doors, said hay-space is reduced by means of sheathing up between the posts for protection to the door in sliding, as shown in Fig. 3. At the left side, however, said two spaces are sufficiently large for all ordinary feeding. Water is introduced to the car at the top into a large pipe h , arranged lengthwise the car, secured to the carlings, as shown in Figs. 3 and 4, and from said pipe smaller pipes are arranged leading to the troughs, as shown in Fig. 3.

S represents the doors, and are arranged so their jamb-posts will be opposite and their space opposite a trough and rack, as shown in Fig. 2, and are arranged to slide on hangers on a track at the upper part of the car-sides, as shown in Figs. 1 and 4. Said doors are made in two sections—an upper section above the watering-troughs and a lower section below said troughs—which are connected by means of bent straps S' reaching out beyond said troughs. Said straps S' are formed or have secured to them a cross-bar g , which has a pair of bent centerstraps g' , which bar and center straps partially close the space between the straps S' , opposite the space between the two door-sections. When said doors are opened, they slide back between posts P and hoods D , as shown in Figs. 5 and 6, a section above and a section below troughs E and their connecting-straps S' inclosing said troughs, and by means of thus making the doors in two sections and connecting their sections, as

shown in Fig. 7, by means of the bent straps S' , it becomes possible to place a watering-trough at the sections within the hoods D , where the doors slide open, and not be interfered with by opening or closing the doors.

In operating the doors the cranked tie-bolts V are turned by the bent straps S' of the doors entering the hollow of their crank, and, turning to the side, the doors are moved, and by means of said cranked parts of said bolts the doors are permitted to be moved to their full limit either way, as the straps S' will lie in the hollow of said cranks beyond the center of said bolts, as shown in Figs. 1 and 5. Ordinary keepers are secured to the car-sills for properly guiding the bottom of the doors, as shown in Fig. 1. A bull-bar R is arranged to span each door-space opposite the space between the two sections of the doors, as shown in Figs. 5 and 6, and is pivotally secured at one end by means of a bolt to one door-post, and when let down rests in a stirrup t , (see Fig. 6,) which is secured to the opposite door-post. When it is desired, said bar may be raised and its free end held from the door-space by means of a catch m , as shown by dotted lines in Fig. 6.

The result attained by the use of the hoods D , and the troughs E , arranged within said hoods and having the folding racks, is that when the car is not utilized for transporting stock all the equipments for watering and feeding the stock are out of the way, so the car may be used for lumber, merchandise, or any other purpose for which an ordinary freight-car may be used, and not in the least injure or interfere with the stock-fixtures; and, besides having conveniences equal to the best for transporting and feeding and watering domestic stock, wild stock can as well be loaded, transported, watered, and fed while on the car, the equipments being so arranged as to be protected, so that jamming and crowding of wild stock will not injure them; and the result attained by the use of the doors, as described, is that watering-troughs may be placed within the hoods D and used and operated at the sections adjacent the doors, at the side where the doors slide back, as well as at the other sections where there is no door, and thus furnishing watering-space for all the stock in the car. Otherwise should said two sections of trough adjacent the doors be omitted certain of the stock last loaded into the car would be unable to get water from other sections should the car be crowded.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is as follows, to wit:

1. The combination, in the stock-car described, provided with the side posts P , of the hoods D , having the ribs D' secured to said posts and arranged dividing the said hoods into separate sections, of the folding racks G , hinged at their lower part to the inner part of said posts, of the cranked tie-bolt V , connecting the depending corner of

said hood adjacent the doorway at the side where the door slides back with the door-post, of the connected pivoted watering-troughs E, arranged between said sideposts adjacent the doorways at either side, and of the door S, consisting of two sections connected together by means of the bent straps S', a strap either side of said cranked tie-bolt, thus forming a recess across the body of said door parallel with said troughs and adapted to slide open within said hood and pass said troughs, wherein the bent straps of said door will engage the hollow of the crank of said tie-bolt to turn said bolt and permit the door to slide its full distance either way, substantially as specified.

2. The combination, in the stock-car described, provided with the side posts P, of the hoods D, having the ribs D' secured to said posts and arranged dividing the said hoods into separate sections, of the connected pivoted troughs E, arranged between said side posts from adjacent the doorways either way, of the door S, consisting of two sections connected together by means of the bent straps S', thus forming a recess across the body of the door parallel with said troughs, and of the cranked tie-bolt V, arranged between the bent straps of said door and connecting the depending corner of said hood adjacent said door to the door-post, wherein said door is adapted to slide back within said hood and pass the extending troughs E, and its said straps engage the hollow of the crank of said bolt to turn said crank to provide a recess therein to permit said door to slide its full distance either way, substantially as specified.

3. The combination, in the stock-car described, provided with the side posts P, of the hoods D, having the ribs D', securing them to said posts, and arranged to divide said hoods into separate sections, the end ribs thereof adjacent the doorways where the doors slide back arranged at a distance from the door-posts to admit the passage of doors S within the hoods adjacent the side posts, the pivoted cranked tie-bolt V, arranged to connect the lower part of said end ribs to the door-posts, and the doors S, consisting of two sections connected together by the bulging side straps S', arranged to inclose said tie-bolts between said straps, wherein the hollow of the crank of said bolts is engaged by said door-straps to turn and reverse the crank of said bolts to permit the doors to slide their full distance either way, substantially as set forth.

4. The combination, in the stock-car described, of the side posts P, the hoods D, having the ribs D' secured to said posts adjacent the door or other side, the end ribs thereof adjacent the door on the side that the door slides, arranged at a distance from the door-post, to admit the passage of the door within the hood, and door S, consisting of the two sections connected together by means of the bulging side straps S', whereby said door is permitted to slide within said hood and pass the watering-troughs and feed-racks adjacent thereto, substantially as described.

JOHN M. BURTON.

Witnesses:

R. B. BAKER,
P. L. SISSON.