

(No Model.)

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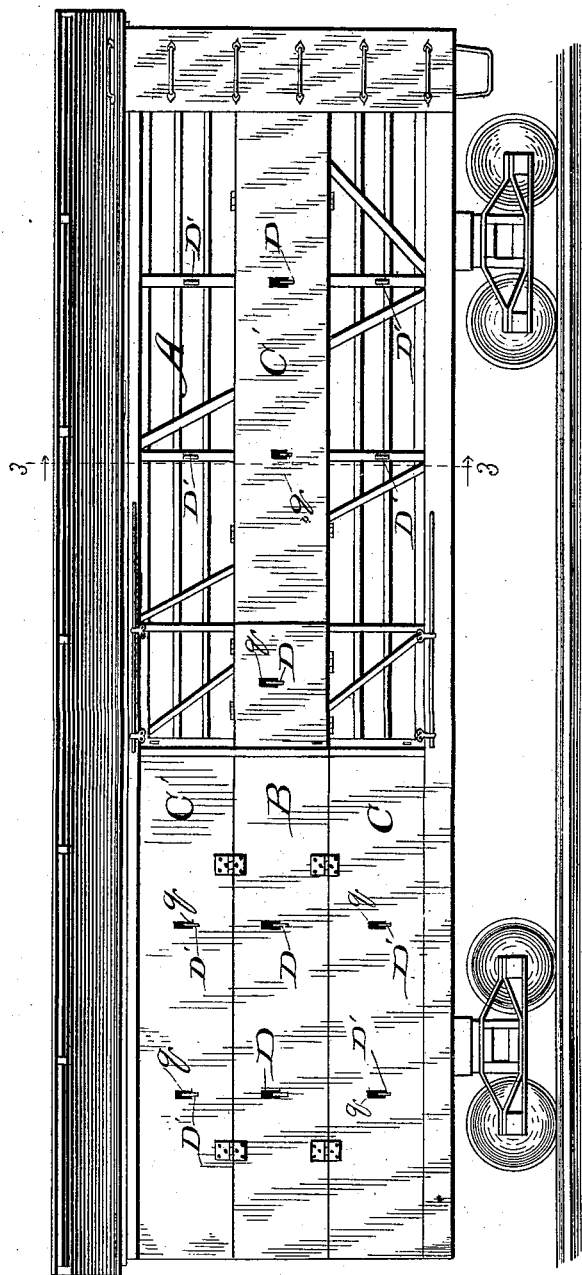
J. JEPPESEN.

STOCK CAR.

No. 343,711.

Patented June 15, 1886.

Fig. 1.



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Attest.

(No Model.)

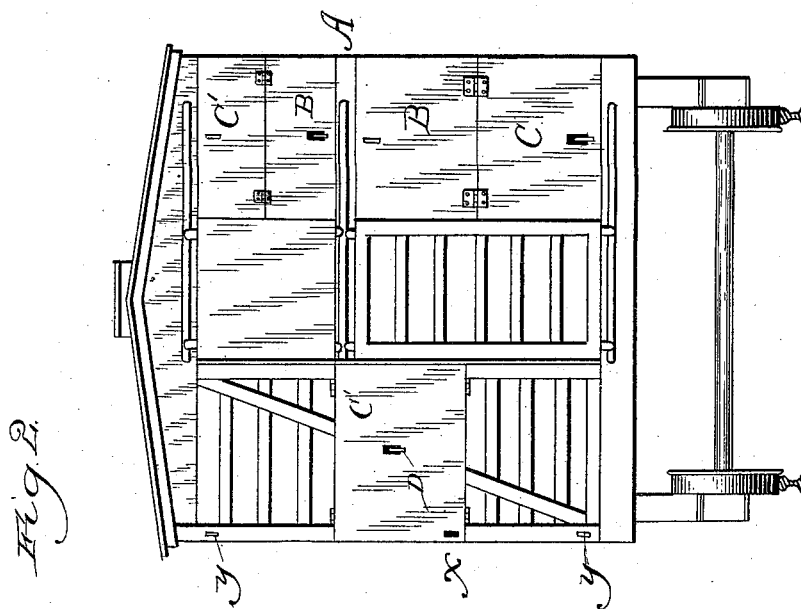
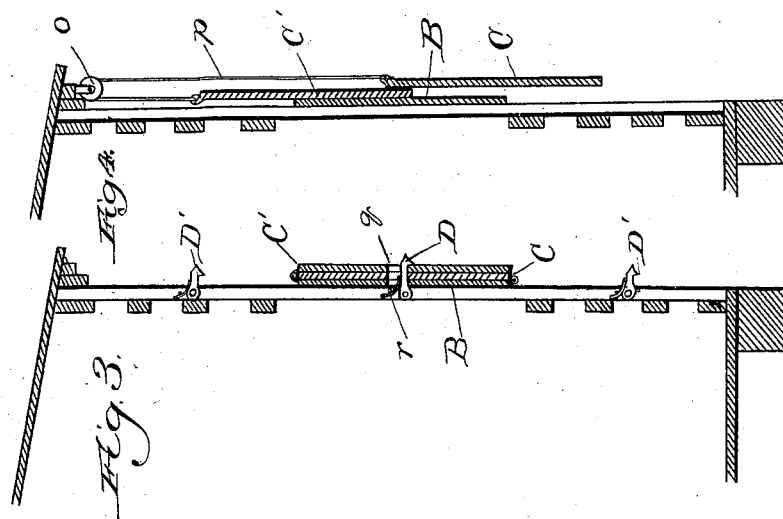
2 Sheets—Sheet 2.

J. JEPPESEN.

STOCK CAR.

No. 343,711.

Patented June 15, 1886.



Witnesses:
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UNITED STATES PATENT OFFICE.

JENS JEPPESEN, OF MORELAND, ILLINOIS.

STOCK-CAR.

SPECIFICATION forming part of Letters Patent No. 343,711, dated June 15, 1886.

Application filed March 1, 1886. Serial No. 193,531. (No model.)

To all whom it may concern:

Be it known that I, JENS JEPPESEN, a subject of the King of Denmark, residing at Moreland, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Railroad Stock-Cars; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a car for the shipping of live stock, which may be readily converted from an open to a closed car, and vice versa. The stock-cars in common use by railroads offer very inadequate protection against the elements, thereby causing great suffering and mortality among the live stock in transit. The mode in practice, where any is attempted, for overcoming this difficulty is to ship live stock to a certain extent in close box-cars during cold weather; but there are various obstacles in the way of practicing this to any great extent, chief among which is the large amount of additional rolling-stock required, close cars in summer being as disastrous as open cars in winter. This difficulty, however, might to a considerable extent be overcome if railroad companies used only open cars in summer and closed cars in winter; but this, for obvious reasons, is not their practice, and even if it were it would not afford means for protecting the animals in cases of emergency, such as sudden changes in the weather.

It is my object to overcome all these difficulties by providing a readily convertible stock-car; and to this end my invention consists in the general construction of my improved device.

My invention also consists in certain details of construction and combinations of parts, all as hereinafter more fully set forth.

Referring to the drawings, Figure 1 is a side elevation of my improved stock-car, having one portion closed and the other opened, and showing one means for rendering the car convertible; Fig. 2; an end elevation of a stock-car provided with my improvement, showing the preferred way of attaching hinged shutters to prevent their interference with the sliding of the end doors; Fig. 3, a vertical cross-section of one of the sides, taken on the line 3 3 of Fig. 1, showing the hinged shutters folded to render the car open and means for

holding the hinged shutters in their adjusted open or closed conditions, and Fig. 4 a similar view showing a modified construction of the folding shutters.

A is a stock-car of ordinary construction, provided with sliding doors on each side and at one or both ends, arranged in the common manner, but to slide readily over the shutters.

B is an intermediate strip affording a permanently-closed shutter running horizontally and centrally along each side of the car from the door-openings to the ends.

Folding upon the intermediate shutters, B, are the shutters C and C'.

On the end of a car, where no door is provided, the fixed and movable shutters are arranged substantially as upon the sides, but are preferably divided vertically to form three sections, the better to control ventilation.

On the end of a car provided with sliding doors (when there are an upper and lower door) the shutters are preferably arranged as shown in Fig. 2; and as it is necessary under all circumstances to afford some ventilation to the car, a part of one or both ends may be left unprovided with shutters, and Fig. 2 shows the lower sliding door in that condition.

If desired, the sliding doors may also be provided with shutters, as illustrated in Fig. 1.

Projecting from the face of each fixed shutter B, as shown in Figs. 1, 2, and 3, are the fastening devices D, preferably in the form of hooks pivoted at their inner rear ends to the upright beams of the car, and held down by stationary springs *r*, as shown.

The hinged shutters C and C' are provided with slots *g*, located to pass over the hooks D in a manner to raise the hooks in receiving them, and afterward allow the latter to spring down again to hold the shutters rigidly in position when it is desired to render the car open; and to pass over and fasten in the same manner upon hooks D', similar to hooks D, toward the upper and lower edges of the car when it is desired to render the car closed.

The positions of the fastening means may be located upon the car to suit particular requirements—as, for example, in the instance shown at *x y* in Fig. 2.

The hinged shutters C and C' are preferably so arranged with relation to each other that

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when opened to fold upon the stationary shutters B the shutters C' overlap the shutters C, as shown. Thus the shutters C, which would be the most liable to be loosened from their fastenings D by the pounding motion of the car, are rendered additionally secure while in their opened condition. It will be seen that this construction will permit a car to be opened or closed to any desired extent, and that the operations of converting the car from one condition to the other are readily and easily performed.

The modification shown in Fig. 4 may under some circumstances afford a preferred construction, owing to the fact that the shutters when hinged may become obstructed by the accumulation of dirt, ice, or snow in the joints, and thus prevent their being readily fastened when it is desired to close or unfold them. This difficulty is entirely overcome by the sliding shutter device, which comprises a rope or chain, *p*, fastened at its opposite ends to the upper edges of the respective shutters C and C', and passing over a pulley, *o*, in proper position upon the car. This shutter-operating device is provided toward opposite ends of the shutters, and affords a convenient and readily operative means for folding or unfolding the shutters by pulling downward or upward upon the ropes or chains.

To prevent flapping of the shutters, guide-grooves may be provided on the car to receive their ends. This, however, is a common provision in other connections for a similar purpose, and it is therefore not considered necessary to do more than mention it in the present case.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a railroad stock-car, stationary shutters B, fastened to the sides and ends of the car, and folding shutters C and C' to fold upon the stationary shutters B, substantially as and for the purpose set forth.

2. In a railroad stock-car, stationary shutters B, fastened to the sides and ends of the car, folding shutters C and C' to fold upon the stationary shutters B, and means, substantially as described, for folding and unfolding the shutters C and C', substantially as and for the purpose set forth.

3. In a railroad stock-car, stationary shutters B, fastened to the sides and ends of the car, and shutters C and C', hinged to the stationary shutters B, substantially as and for the purpose set forth.

4. The combination, with a railroad stock-car, of stationary shutters B, shutters C, hinged to the lower edges of the shutters B, shutters C', hinged to the upper edges thereof to fold upon the shutters B over the shutters C, and means, substantially as described, for securing the folding shutters in their adjusted positions, substantially as and for the purpose set forth.

5. A convertible railroad stock-car, comprising, in combination, a car, A, stationary shutters B, slotted shutters C C', hinged to the edges of the shutters B, fastening devices D upon the stationary shutters, and fastening devices D' toward the upper and lower edges of the car, the whole being constructed and arranged to operate substantially as described.

JENS JEPPESEN.

In presence of—

HENRY HUDSON,

JULIUS W. DYRENFORTH.