

A. RANK.
Stock Car.

No. 111,872.

Patented Feb. 14, 1871.

Fig. 1.

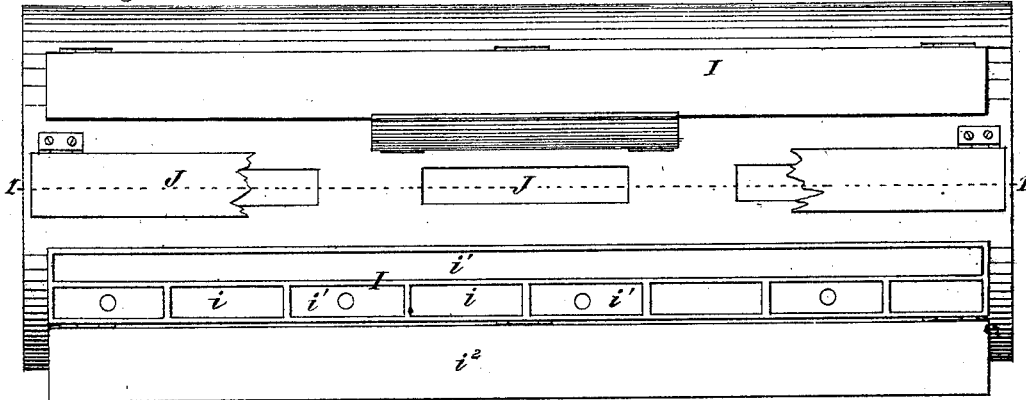


Fig. 2.

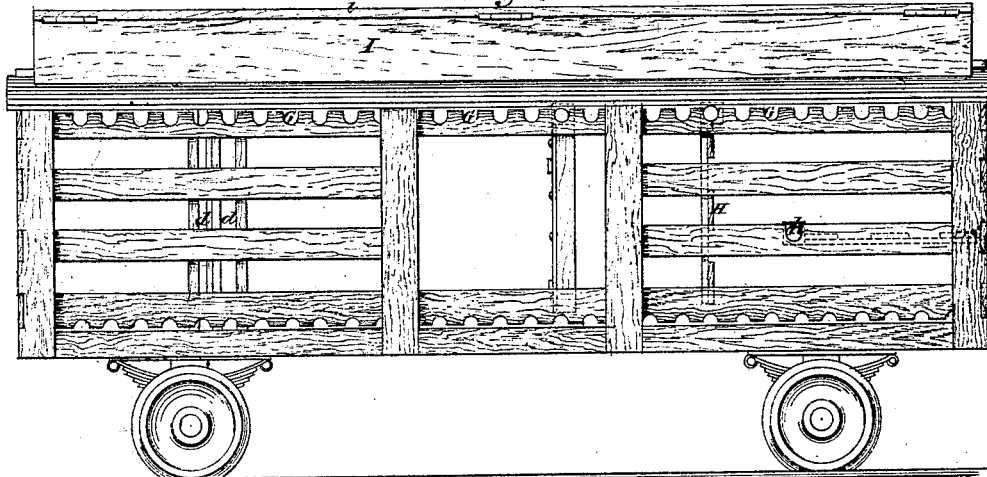
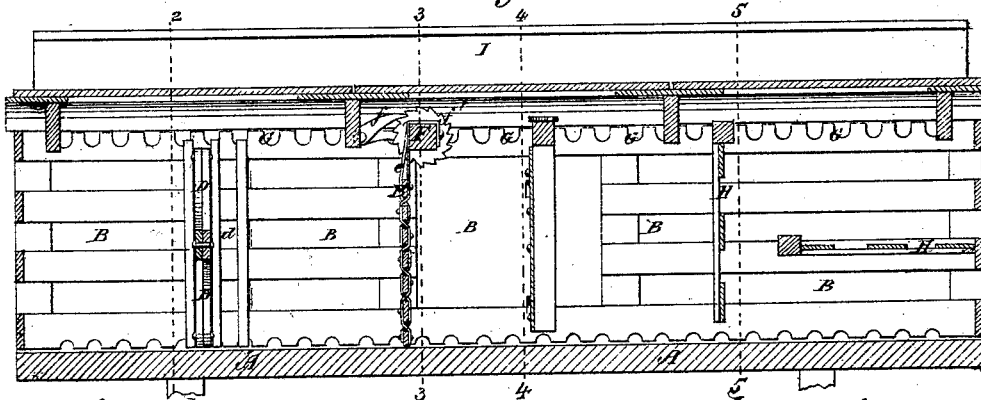


Fig. 3.



Witnesses:
Fred. Artois
Herm. Lantier

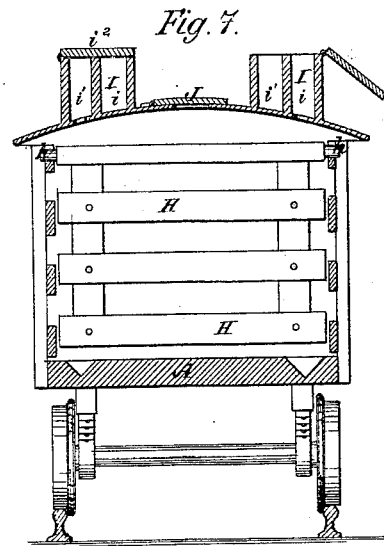
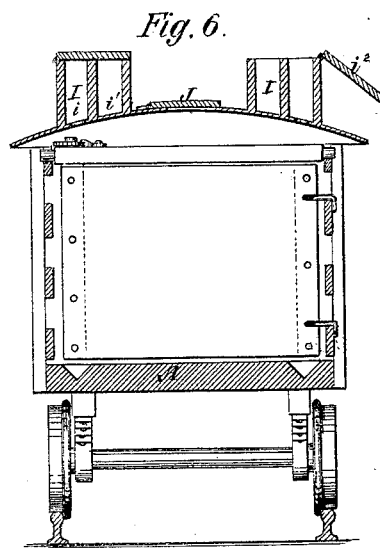
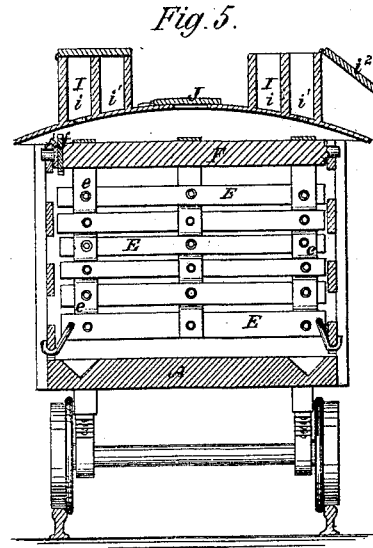
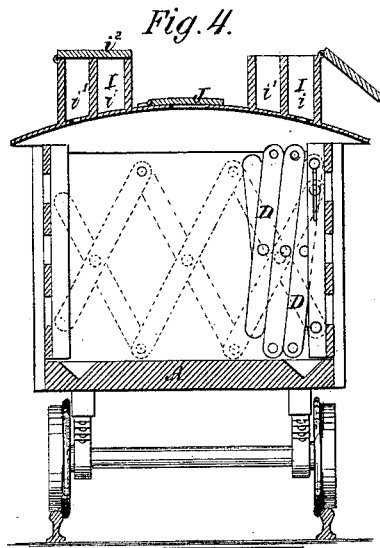
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UNITED STATES PATENT OFFICE.

AMOS RANK, OF SALEM, OHIO.

IMPROVEMENT IN STOCK-CARS.

Specification forming part of Letters Patent No. **111,872**, dated February 14, 1871.

To all whom it may concern:

Be it known that I, AMOS RANK, of Salem, in the county of Columbiana and State of Ohio, have made an invention of certain new and useful Improvements in Railway Stock-Cars, of which the following is a specification:

The object of the first part of my invention is readily to convert an ordinary freight-car into a stock-car, or vice versa; to which end my improvement consists in a novel method, hereinafter fully set forth, of constructing a car with flexible or yielding partitions, capable of being swung, rolled, or folded out of the way, so as to leave the car free for dead freight when desired.

The object of the next part of my invention is to protect the stock from injury in transportation; and the improvement consists in a novel method, hereinafter fully described, of constructing a stock-car with flexible partitions, made of elastic or yielding material, which, while effectually separating the animals, will protect them from injury by the jerking of the cars.

The accompanying drawing shows all my improvements embodied in a single car. Obviously, however, some of them may be used without the others, and the details of their construction may be varied to some extent without departing from the spirit of my invention.

Figure 1 is a plan; Fig. 2, a side elevation; Fig. 3, a vertical longitudinal section at the line 1 1 of Fig. 1; Fig. 4, a vertical transverse section at the line 2 2 of Fig. 2; Fig. 5, a similar section at the line 3 3 of Fig. 2; Fig. 6, a similar section at the line 4 4 of Fig. 2; Fig. 7, a similar section at the line 5 5 of Fig. 2.

The body A of the car is mounted on the usual trucks.

A slatted car is preferable; but my invention may be adapted to an ordinary box-car, or such a car might be constructed with sliding, hinged, or rolling sides or shutters to admit light and air. The slatted car might, in like manner, be provided with sliding, folding, or rolling slides, to adapt it to use as a car for dead freight. The interior of the car is divided into stalls B, of suitable size, by partitions C, which may be arranged either longitudinally or transversely relatively to the car. In the

drawing, however, the partitions are shown as arranged transversely relatively to the car.

In Fig. 4 the partition is composed of bars D, arranged like a pair of lazy-tongs, and secured at one end in a vertical groove formed in the side of the car. These bars are pushed back to allow the cattle to enter the stall, and then extended across the car and secured by proper hooks or catches. Instead, however, of being secured to one side, the bars might be either swung from the roof or floor, or be allowed to enter recesses left in either for that purpose, and be let down, drawn up, or swung into position, as desired, and be secured as above mentioned. The size of the stall can be varied by shifting the bars into one or the other of a series of parallel grooves, *d*, in the car.

The partition shown in Fig. 5 is composed of horizontal slats E, united by bands or straps *e*, of some proper flexible material, such as leather, or gum, or rubber belting, or strong cloth. These bands are wound upon a windlass, F, provided with a pawl, *f*, and ratchet *f'*, to tighten the partitions when fastened at the ends opposite the roller, or to hold the partitions up when wound upon the roller.

Instead of horizontal slats winding on a windlass near the top of the car, the slats might be vertical and the windlass on one side of the car. The arrangement first described is, however, deemed more convenient.

The size of the stalls may be varied under this arrangement by shifting the windlass from one set of notches, G, to another, these notches being formed in or near the top of the car. (See Fig. 3.)

In Fig. 6 I have shown a partition formed of canvas, and operating like the slatted partition above described. This partition has also the advantage of preventing injury to the animals from jerking of the cars, is cheap, simple, and easily applied.

In Fig. 7 I have shown a partition, H, made like a gate, and swung from the roof in the same manner as the slatted one, but without a pawl and ratchet. This gate is so constructed that it can easily be removed from its place and arranged horizontally in the car to form the foundation of a middle deck, which may be of loose plank or of sheet metal. Projections on the gate may extend between the

slats of the car to afford a proper support for the deck, or a shoulder may be formed inside the car for that purpose. In this instance the axis *h* of the gate rests in recesses in the slats of the car.

The loose plank or metal cover for the middle deck prevents the soiling of the partitions, and tends to promote the comfort and cleanliness both of the stock and their attendants.

Suitable tanks or troughs *I* are arranged lengthwise on each side of the top of the car, and divided into suitable bins or compartments, *i i'*, to receive feed and water. The lids *i''* of these troughs are hinged so that access easily may be had to their interior. These troughs not only serve as reservoirs or magazines of supply, but also form guards to prevent the attendant from falling off while moving about on top of the cars,

Doors *J* are formed in the roof of the cars, to afford access to the stock for feeding, watering, showering, &c.

I also propose to arrange water and feed troughs in each stall, said troughs communi-

cating with proper supply-chambers; but I do not claim these devices in this application.

I am aware that movable or hinged partitions heretofore have been used in stock-cars and do not, therefore, broadly claim every mode of constructing such partitions.

I claim as my invention—

1. The combination, with a stock-car, of adjustable and flexible or elastic partitions, constructed substantially as hereinbefore set forth, to prevent injury to the stock from the jerking of the cars.

2. In combination with a cattle-car, the rolling slatted partition shown in Fig. 5, constructed to operate as set forth.

3. In combination with a cattle-car, the flexible canvas partition shown in Fig. 6, constructed to operate as set forth.

In testimony whereof I have hereunto subscribed my name.

AMOS RANK.

Witnesses:

WILLIS CADWALLADER,
JOHN RANK.