

(No Model.)

W. NERACHER.  
Stock Car.

No. 234,420.

Patented Nov. 16, 1880.

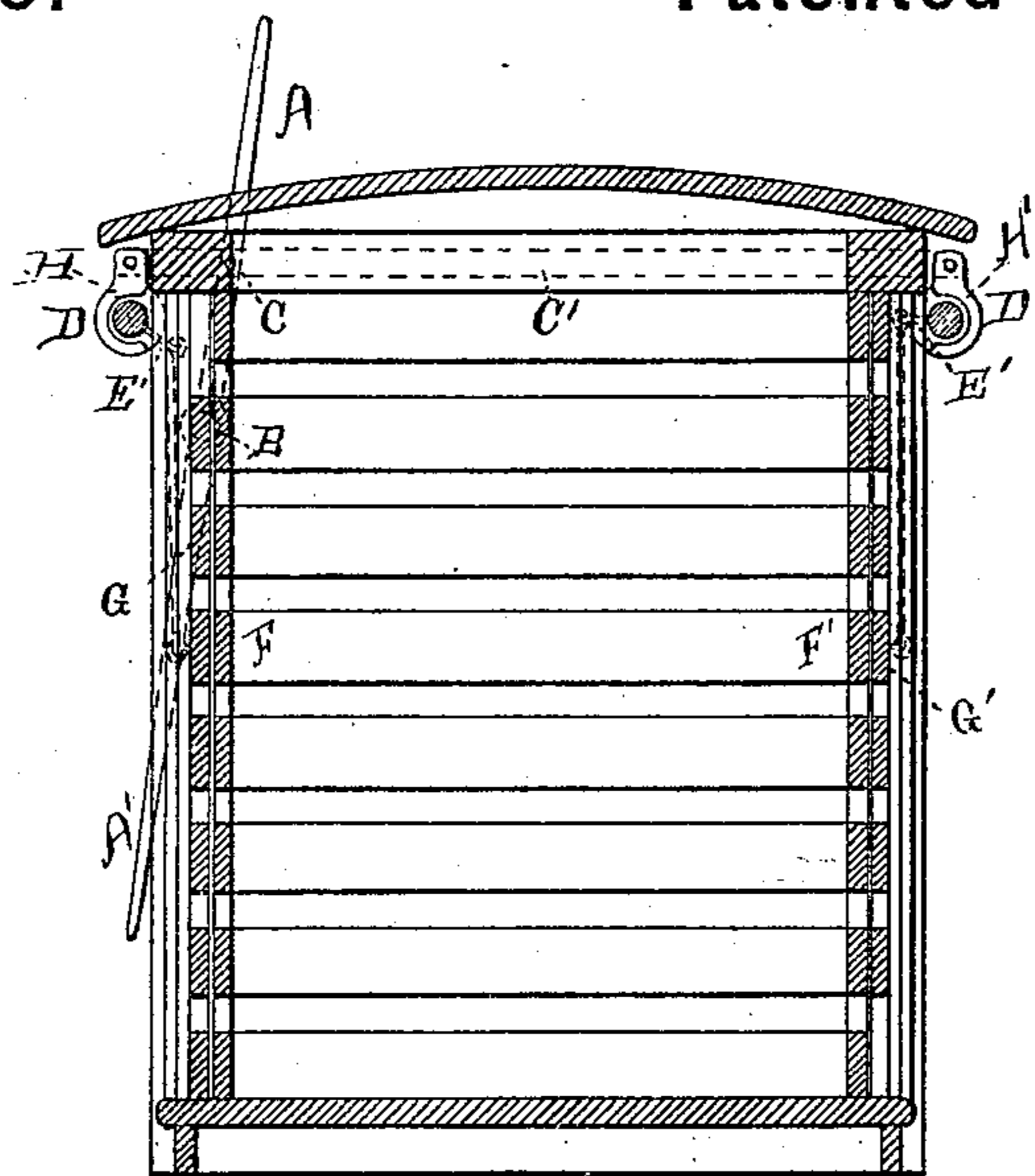


Fig. 1.

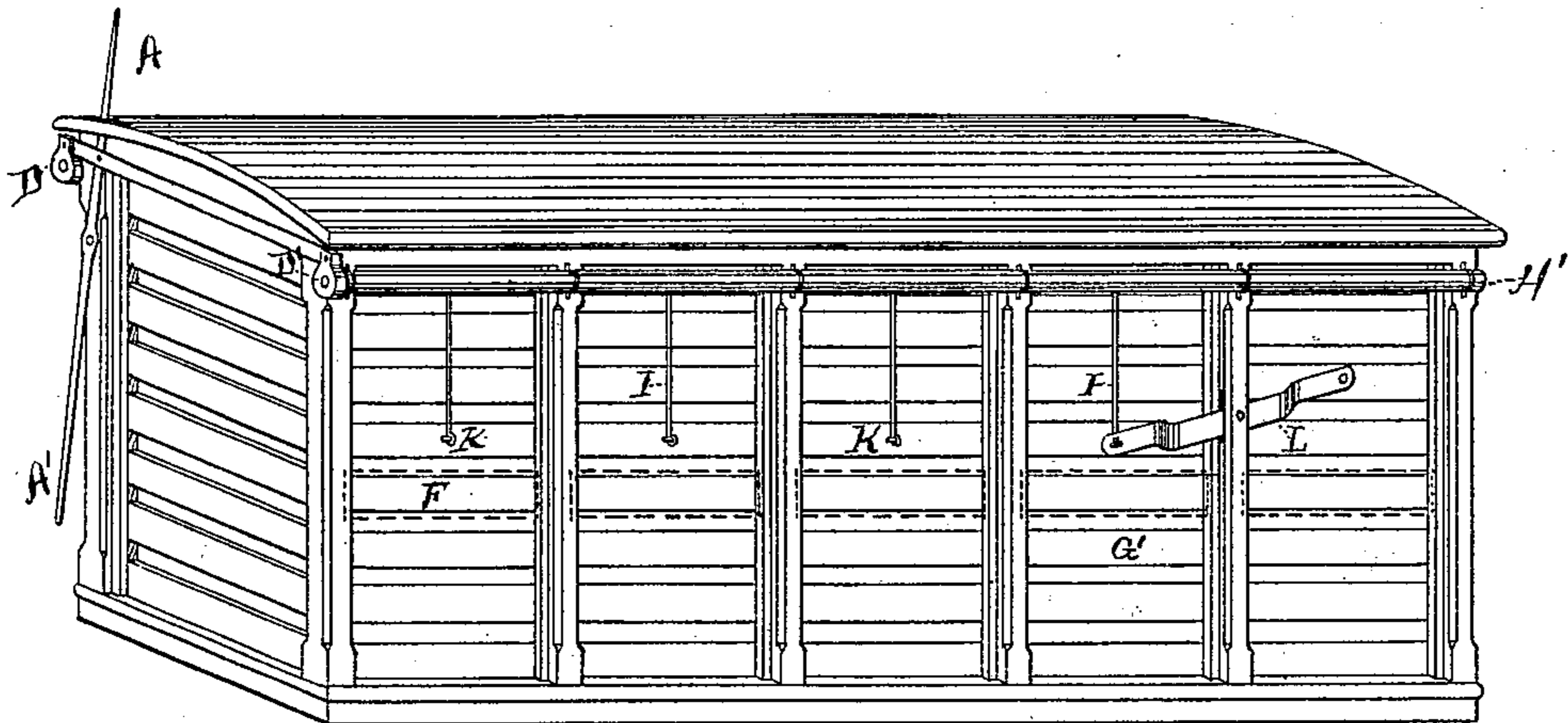


Fig. 2.

Witnesses,

Samuel Wolcott  
Oscar Balger

William Neracher, Inventor,

By Tracy, Dyer & Miller,  
Attorneys.

# UNITED STATES PATENT OFFICE.

WILLIAM NERACHER, OF CLEVELAND, OHIO.

## STOCK-CAR.

SPECIFICATION forming part of Letters Patent No. 234,420, dated November 16, 1880.

Application filed March 29, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM NERACHER, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful  
5 Improvement in Stock-Cars; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

10 My invention relates to certain new and useful improvements in the construction of cars used for the purpose of transporting live stock, and has for its object the construction of the sides and ends of the car in such a manner  
15 that the apertures for giving ventilation to the stock may be closed or opened as the weather requires; and especially in the transportation of stock from long distances and from one climate to another is my car valuable for the  
20 health and protection of the stock, as well as the increase of the profits of the owner; and on account of any sudden change in the weather during these transportations these apertures may be opened or closed while the car is in  
25 motion, thus protecting the stock in the best possible manner.

In using a car having a device of this kind I avoid the exposure and danger of freezing stock, on account of which a large percentage  
30 is often lost in winter by transporting them in open stock-cars.

By means of my device the atmosphere of the car can be kept at the required temperature for the health and comfort of the stock,  
35 as the apertures can be partly opened or closed, at the option of the drover or train-men.

It will be seen that while the car is either opened or closed one of the movable sides is down and the other or opposite side is raised,  
40 thus the one balancing the other, and by this means I avoid the strain or friction upon the series of levers which would otherwise occur if both sides were raised or lowered at the same time; also, if a storm is coming from one  
45 direction, that side may be closed by severing the connecting-rod at C' and making another lever at the opposite side, same as at A A', and running the ends of the connecting-rods in boxes at C'. I can open or close either side  
50 without affecting the other, thus affording protection and ventilation to the stock; and by

a device hereinafter described the sides, when operated separately, are so constructed that part of a side is raised and the other part of the same side is lowered, thus forming a bal- 55  
ance, and avoiding the strain on the levers which would otherwise occur if the whole side were raised or lowered at the same time, and by using these devices at the ends of the car I have a complete method of inclosure and ob- 60  
tain a perfect box-car.

Another improvement is, that after the car has been shipped with stock it can be closed, and on its return trip be used as a transpor- 65  
tation-car for the carrying of merchandise, and by this means is furnished a double source of profit to the road employing my car.

My invention consists of a common stock-car having double sides, the inner ones, F F', being stationary, and the outer ones, G G', be- 70  
ing so arranged as to move up and down by means of certain gearing, A B C D, &c., hereinafter described, so as to cover the apertures made for ventilation, as seen by the dotted lines at F, and renders the car tight. 75

The means which I have adopted for opening and closing the apertures being much more simple and durable, and the cheapness of its construction, make my invention more desirable than other methods which have here- 80  
tofore been adopted.

The outer part of the double sides G G' are raised or lowered by means of a series of levers, the first of which, A A', are in a perpendicular position at the end of the car, and 85  
turning on a pivot, B, as seen in the drawings, the said lever being so long that it can be operated by a person on the ground at A' or on the top of the car at A. This lever is fast- 90  
ened a short distance above the pivot B to a connecting-rod, C C', running horizontally across the end of the car, so that any move- 95  
ment of the lever A A' will give this connecting-rod a lateral movement to the right or left, as the case may be. Each end of this connect-  
ing-rod C C' is fastened to a wheel or cam, D D', which, in turn, are fastened to rods H H', running the whole length of the car directly under the roof, which are held to their places by means of staples or other similar devices, 100  
so that the movement of the cams D D' causes the rods H H' to revolve equally, as seen in

the drawings. From these rods H H' project a series of levers, E E', in a horizontal position, reaching toward the car. The projected ends of these levers are connected to rods I I, which  
 5 are in turn fastened to the movable sides at K K. Thus, by moving the levers A A', giving a lateral movement to the connecting-rod C C', causing the cams D D' and the attached rods H H' to revolve, and raising or lowering  
 10 the rods I I, and the sides to which they are attached, the car is opened or closed, as desired.

If, as heretofore stated, it is desirable to open one side and close the other, I would sever the  
 15 connecting-rod C C' at C', and, instead of using rods I I for each section of the side, I would use a lever, as shown at L, Fig. 2, each end of which is connected with the sides G G' and one end connected with the rod I, so that by  
 20 raising the rod I, causing its connected side G' to rise and the opposite side to fall, a balance is formed to avoid friction, as heretofore described.

Having thus described my invention, what I claim as new and useful, and desire to secure by Letters Patent, is— 25

1. A combined freight and stock car in which the sides and ends are formed of horizontal slats, with air-spaces between the same the entire length of the slats, said air-spaces being closed  
 30 when desired by means of counterbalanced movable slats, constructed and arranged to be operated either from the ground or from the top of the car, substantially as set forth.

2. In combination with the counterbalanced  
 35 movable slats G G', one side of which is raised and the opposite lowered to close the car, or vice versa, the rods C C', H H', and levers A A', E E', I I', and L, as and for the purpose set forth and described. 40

This specification signed and witnessed this 17th day of March, 1880.

WILLIAM NERACHER.

Witnesses:

S. M. WOLCOTT,  
 A. O. BALZER.