

T. L. RANKIN.  
REFRIGERATING CAR.

No. 110,394.

Patented Dec. 20, 1870.

Fig. 1

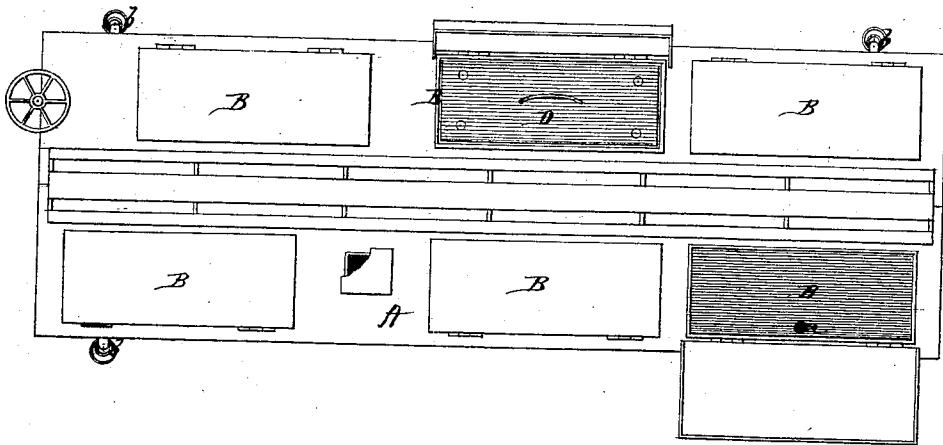
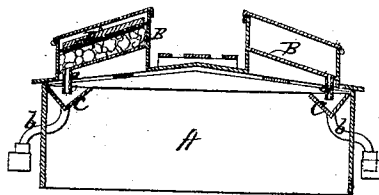


Fig. 2



Witnesses

Harry King  
Al. Everett

Inventor

Thomas L. Rankin  
per  
Alexander Massey  
attys.

# United States Patent Office.

THOMAS L. RANKIN, OF GRANVILLE, ILLINOIS.

Letters Patent No. 110,394, dated December 20, 1870.

## IMPROVEMENT IN REFRIGERATING-CARS.

The Schedule referred to in these Letters Patent and making part of the same.

### To all whom it may concern:

Be it known that I, THOMAS L. RANKIN, of Granville, in the county of Putnam and in the State of Illinois, have invented certain new and useful Improvements in Refrigerator-Cars; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of a refrigerating and condensing-car for the shipment of meat, as will be hereinafter fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a plan view, and

Figure 2 is a transverse vertical section of so much of a railroad-car as is necessary to illustrate my invention.

A represents the roof of a railroad-car provided on top with ice-boxes B B, of any suitable size and shape.

The bottoms of these boxes are inclined, as shown in fig. 2, toward the sides, for a twofold purpose; first, for the purpose of allowing the ice-water to run off through the pipe *a* into a trough, C, arranged within the car, and from said trough out through the pipe *b*; and second, so that the moisture which is condensed or frozen against its under side will not form in drops, but adhere until it reaches the projecting or lowest point, and drop into the trough and pass off with the ice-water.

On top of the ice in each box or chamber B is placed a follower, D, which is provided with packing around its edges, and which, as the ice melts away,

follows the ice down, preventing any space from being formed above the ice, and thus adapting the size of the ice-chamber to the amount of ice remaining in it.

When used as a refrigerating-car, the walls of the car are lined with five plies of heavy pasteboard or other equivalent material, making six half-inch air-spaces between the walls.

Or it may be used only for reducing the temperature within the car without refrigerating, by means of suitable mixture placed in the chambers B B, which will condense the moisture and form a frost on the under sides of said chambers. This will bring the atmosphere in the car to such a degree of dryness that the meat will keep for several days.

In a car made as air-tight as possible, meat can be shipped from northern Texas to New York, a distance of about fourteen hundred miles, in seventy hours, without having to reduce the temperature below seventy or eighty degrees, and the meat will be in a better state than if it was reduced to thirty-four or thirty-six degrees, for the reason that, if it has been refrigerated down to this degree, it will spoil very soon after bringing it out.

Having thus fully described my invention,

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

The arrangement, upon each side of the walk upon the top of the railroad-car A, of the inclined boxes B B, with followers D and spouts *a* leading into the troughs *c*, from which extend pipes *b* outside of the car, all substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 9th day of May, 1870.

THOMAS L. RANKIN.

Witnesses:

CONRAD L. SCHAFER,  
THEODORE HOLLY.