

J. D. POTTS & B. P. LAMASON.
REFRIGERATOR RAILROAD CAR.

No. 104,765.

Patented June 28, 1870.

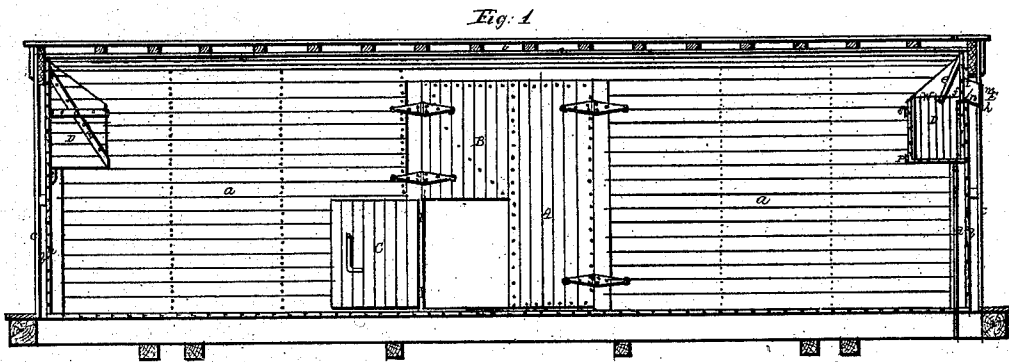


Fig. 3

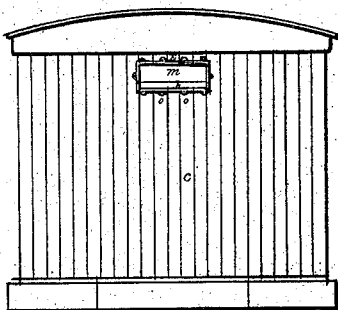


Fig. 2

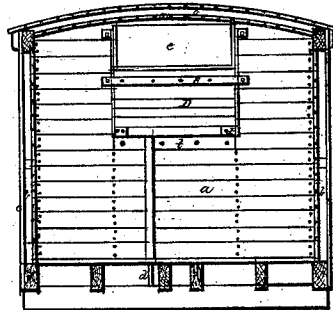


Fig. 4

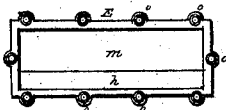
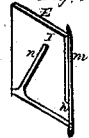


Fig. 5



Witnesses

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Letters Patent No. 104,765, dated June 28, 1870.

IMPROVED REFRIGERATOR RAILROAD CAR.

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

To all whom it may concern:

Be it known that we, JOSEPH D. POTTS, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, and BENJAMIN P. LAMASON, of Milton, in the county of Northumberland and State of Pennsylvania, have invented a new and useful Improvement on Railroad Cars, for transporting butter, eggs, fruit, and other perishable merchandise; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, in which—

Figure 1 is a longitudinal sectional elevation;

Figure 2 is a transverse sectional elevation.

Figure 3 is an end elevation;

Figure 4 is a front view of ventilator; and

Figure 5 is a transverse sectional view of ventilator.

To enable others skilled in the art to make and use our invention, we will proceed to describe its construction and operation.

We construct our car-body after any of the suitable known plans. We place it upon railroad car-trucks of the usual pattern. We line the roof, sides, and ends of car-body, seen at *a a a*, &c., figs. 1 and 2, in the accompanying drawing. The lining *a a*, &c., is usually wood. Other suitable material can, however, be used.

The interstice *b* between the inside lining *a a*, &c., and outside sheeting *c*, we compactly fill with dry sawdust or its equivalent.

The car is provided with inside doors, shown at *A*, *B*, and *C*, fig. 1. These doors are so constructed as to admit of being packed, and are packed same as car-body, sides, &c.

One-half of the door is made in two parts, seen at *B* and *C*, fig. 1. The object in so constructing them is that convenient ingress may be had to the car when loaded. Should the lading, while in transit, be thrown against the lower portion of the door *C*, thereby obstructing it, the upper part *B* can be readily opened, and free ingress be had to the car.

We also provide our car with two ice-boxes, one at either end of car, shown at *D*, figs. 1 and 2. These boxes are provided with waste-pipes *d* and an apron, *e*. The utility of the apron is hereafter described.

An aperture is made in the front of ice-box at *f*, corresponding in dimensions to ventilators *E*, shown at *E E*, &c., figs. 1, 3, 4, and 5.

The ventilator *E* is composed of iron or other suitable metal, and is constructed with a front and back

opening, seen at *h* and *I*. The front opening *h* is at the bottom, and is formed by the front *m* extending from the top downward the desired distance. The back opening *I* is likewise formed by the back *n* extending upward and outward the proper distance. The object of the vents or openings *h* and *I* is to admit air into the car, while rain, cinder, and other objectionable matter are excluded, by means of the back *n*.

When the ventilators *E* and ice-boxes *D* are constructed as herein described, an aperture of suitable size is made in ends of car-body, and ventilators *E* are put in them, and are secured therein by means of screws through the holes *o*, fig. 4. When thus in place the ice-boxes *D* are put in position, and secured by means of the iron straps *P* and *S* and wooden eleat *t*. The aperture *f* in ice-box *D* comes immediately over the opening *I* in ventilator *E*. The apron *e*, in ice-box *D*, is inclined inward and downward, and extends a little below the opening *I*, in ventilator *E*.

Having thus described the construction of our improvement, its operation is explained as follows:

All things being constructed and arranged as herein described, ice is put into the box *D* through the opening *w*. When the car is in motion a current of air passes in through the openings *h* and *I* of ventilator *E*, and as it comes in contact with the apron *e*, in ice-box *D*, it is forced down upon the ice, mingling with which it is thereby cooled, and its moisture condensed. It then passes, dried and cooled, out through opening *w*, into body of car, cooling the temperature of the car to such a degree that butter, eggs, fruit, and other perishable articles can be preserved during their transit between distant points. As this air loses its coolness it passes out of the car through the ventilator at the other end thereof.

Now, what we claim as our invention, and desire to secure by Letters Patent, is—

1. The ventilator *E*, constructed with the openings *h* and *I*, substantially as and for the purpose set forth.
2. The ice-box *D*, with the apron *e*, arranged substantially as and for the purpose described.
3. In combination with the above, the inside doors *A*, *B*, and *C*, constructed substantially as herein described.

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Witnesses:

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