

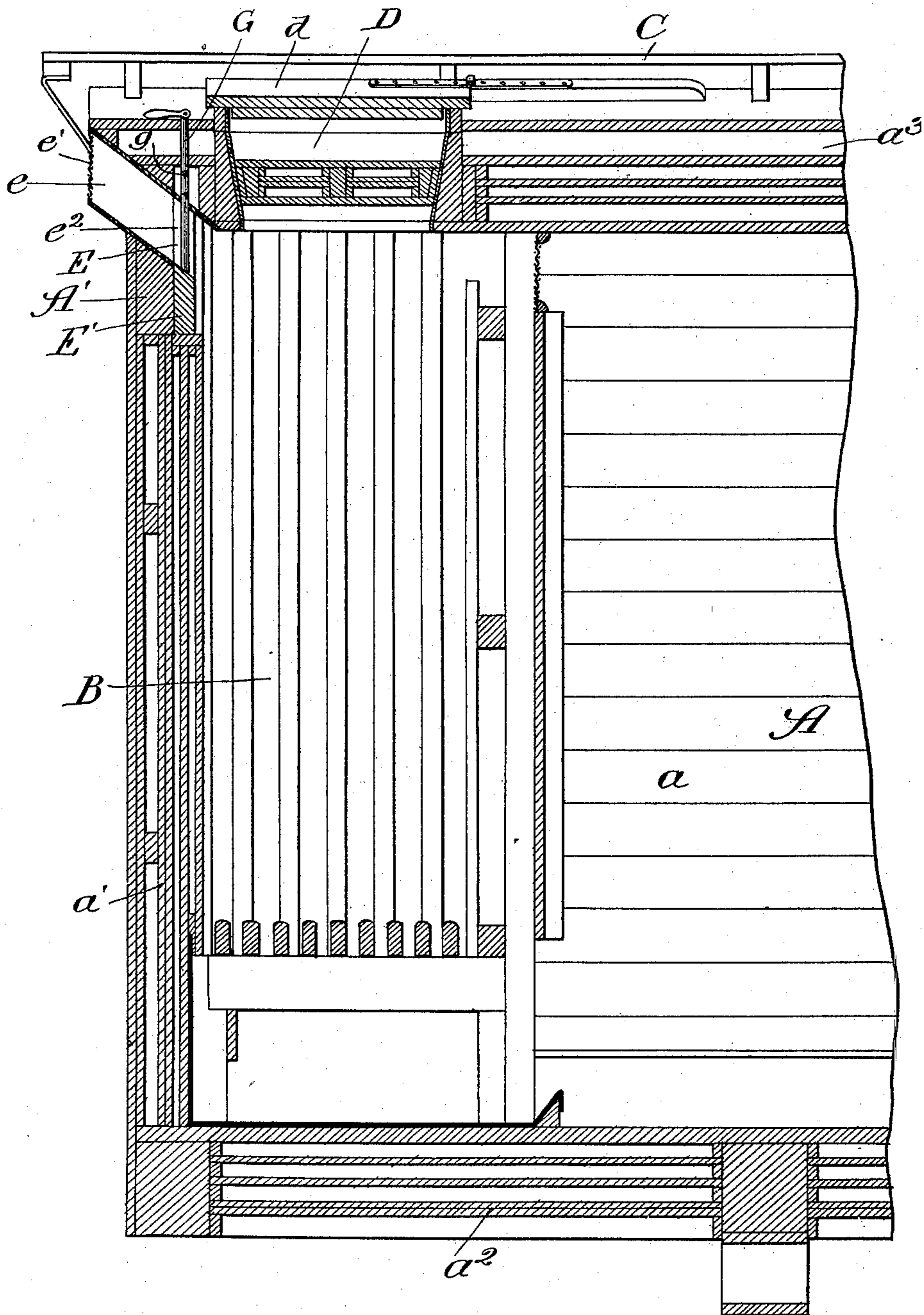
No. 608,237.

Patented Aug. 2, 1898.

F. THOMPSON.
COMBINED VENTILATING AND REFRIGERATOR CAR.

(Application filed Nov. 4, 1897.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

FRANK THOMPSON, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE COMMON SENSE BOLSTER COMPANY, OF SAME PLACE.

COMBINED VENTILATING AND REFRIGERATOR CAR.

SPECIFICATION forming part of Letters Patent No. 608,237, dated August 2, 1898.

Application filed November 4, 1897. Serial No. 657,321. (No model.)

To all whom it may concern:

Be it known that I, FRANK THOMPSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in a Combined Ventilating and Refrigerating Car, of which the following is a specification.

The object of my invention is to provide a simple, economical, and efficient car which may be used as a ventilating and refrigerating car, as desired; and the invention consists in the features and combinations hereinafter described and claimed.

The accompanying drawing represents a longitudinal vertical sectional elevation showing a portion of a car fitted with my improvements.

In the art to which this invention relates it is well known that it is necessary that the same car when loaded with perishable freight—for instance, fruit in California for shipment east or meat in Chicago for shipment west—has to be used as a ventilator and refrigerator car. In certain seasons the car passes during one trip through sections of the country that are cold and sections of the country that are warm, so that in order to economically run the car it must be loaded with ice at one point to prevent the freight from being destroyed, while at other points such ice can be dispensed with and the cool dry air of that region used for ventilating and thus preserving the freight. The principal object of my invention, therefore, is to provide a car that may be used as a combined ventilator and refrigerator car and which may be constructed and handled in a simple and economical manner.

In illustrating and describing my improvements I do not deem it necessary to illustrate and describe an entire car, as such constructions are well known to those skilled in the art. I therefore limit my illustrations and descriptions to one portion of a car which will show my improvements, thus avoiding prolixity, confusion, and ambiguity.

In constructing my improved car I use a body portion A, having ice-tanks B at each end thereof, such car having the usual insulated side, end, bottom, and roof portions

a, a', a², and a³, all of which are constructed in the usual manner. The roof portion is provided with the usual run-board C and hatchways or ice-holes D, located over the ice-tanks and covered by means of the usual hatch-doors d. Through these hatch or ice openings the ice is inserted or may be withdrawn from the ice-tanks, and there may be one or more of such ice-openings for each tank, located at each side of the run-board of the car.

In order to ventilate the car and use it as a ventilating-car, I provide the "end plate" A' of the car with one or more openings E, through which air may enter the car. These openings may be provided with a galvanized-iron funnel e, having a screen portion e' at the end thereof to prevent the entrance of cinders, dirt, and large deleterious elements. Inside of the end plate of the car and arranged to cover or uncover the opening is a movable insulated plug E', arranged so as to operate in vertical guides or ways e². In the drawing this plug is shown in such position as to leave the ventilating-hole open, and in order to operate the plug a rod or rods G is provided and made in two or more sections, hinged together, so that when the door is raised to its uppermost position the projecting part of the rod may be folded against the roof. The operating-rod may also be provided with pin-holes g, so that when it is raised to its uppermost position a pin may be inserted therein and hold the door in such upper or closed position. In the drawing I have shown this door as located in the end plate at one side of the run-board of the car, and while I prefer to use these openings in such location—one at each side of the longitudinal center of the car—I do not desire to be limited to this specific location or to any specific number further than is pointed out in the claims.

When this car is used as a refrigerator-car, the hatch-door and ventilating-openings are closed and the ice-tank is provided with the requisite supply of ice. While the car is moving through a cool dry region, it is not necessary to load the ice-tanks completely with ice, but just a sufficient amount and to then close the ice-door and open the ventilating-opening, so that air may enter at one end

of the car through the end plate and force the foul air out through the openings at the opposite end of the car, thus preserving any perishable freight which may be contained
5 in the car.

The principal advantage of my invention is that the openings are so located that the air which moves close to the roof of the car when the car is in motion and which drops
10 sufficiently when a space between the cars is reached to strike the end plate of the next succeeding car with considerable force is used to ventilate the car. It will thus be seen that when the ventilating-openings are located, as
15 I have described, in the end plate of the car and provided with the desired funnel and screen even though the car be moving at a slow rate of speed perfect ventilation is obtained.

20 I claim—

1. In a combined ventilating and refrigerating car, the combination of a car-body provided with an ice-tank at each end thereof, an ice opening or openings in the roof of the
25 car provided with hatch-doors and a ventilator-opening in the end plate of the car located

adjacent to the roof portion, a funnel leading from the ventilating-opening to a point adjacent to the edge of the roof and provided with a screen, and a vertical movable plug or
30 door for covering and uncovering the ventilating-opening, substantially as described.

2. In a combined ventilating and refrigerating car, the combination of a car-body provided with an ice-tank at each end thereof
35 and with ice-openings and hatch-doors on the roof of the car over the ice-tanks, a ventilating opening or openings in the end of the car and in the end plate thereof adjacent to the roof, a funnel in such openings provided
40 with a screen and leading to a point adjacent to the edge of the roof, a vertical movable plug arranged adjacent to and for the purpose of covering and uncovering the ventilator-opening, and a jointed rod for operating
45 such doors so that the projecting end of the rod may be laid on the roof, substantially as described.

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Witnesses:

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