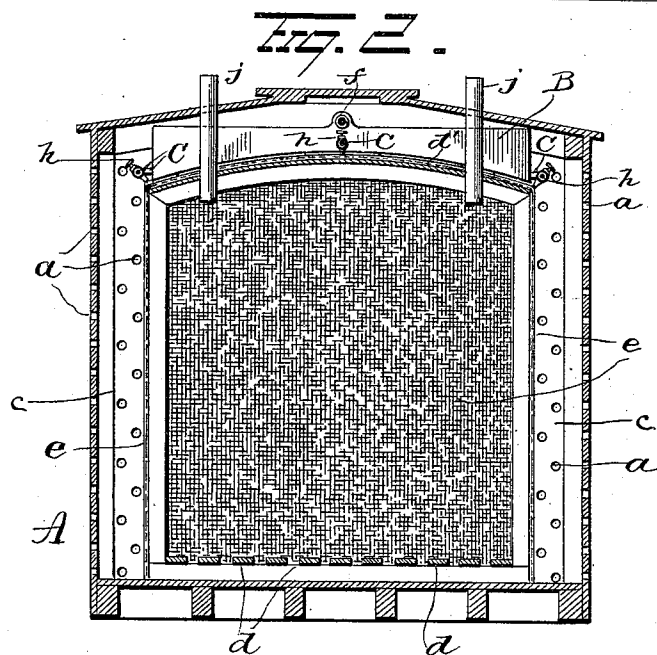
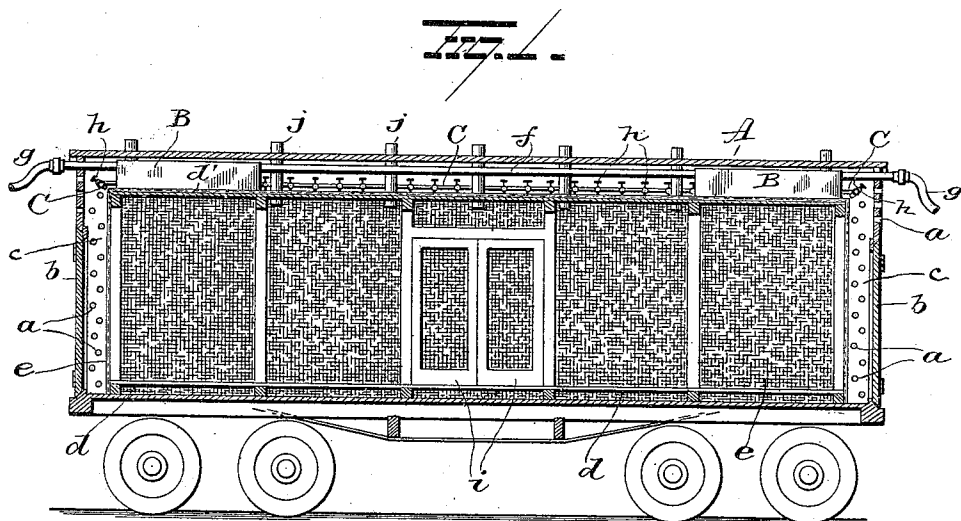


(No Model.)

J. M. GILSTRAP.
REFRIGERATOR CAR.

No. 536,721.

Patented Apr. 2, 1895.



Witnesses
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UNITED STATES PATENT OFFICE.

JAMES MONROE GILSTRAP, OF SACRAMENTO, CALIFORNIA.

REFRIGERATOR-CAR.

SPECIFICATION forming part of Letters Patent No. 536,721, dated April 2, 1895.

Application filed October 17, 1894. Serial No. 526,193. (No model.)

To all whom it may concern:

Be it known that I, JAMES MONROE GILSTRAP, a resident of Sacramento, in the county of Sacramento and State of California, have
5 invented certain new and useful Improvements in Refrigerator-Cars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it ap-
10 pertains to make and use the same.

My invention relates to an improvement in refrigerator cars,—the object of the invention being to produce simple and efficient means for refrigerating the contents of a railroad car
15 without the use of ice.

A further object is to produce a refrigerator car which shall be simple in construction and effectual, in all respects, in the performance of its functions.

20 With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts as hereinafter set forth and pointed out in the claims.

25 In the accompanying drawings: Figure 1 is a view of a car embodying my improvements. Fig. 2 is an end view.

A represents a car body having its walls made with a number of perforations *a* and
30 said car body is provided at each end with a door *b*. My improved refrigerating devices are located within the car body about sixteen inches from the walls thereof, thus producing a space or passage *c* to admit a man to regulate or adjust the devices. The refrigerator
35 comprises a frame covered with burlap *e* or other material capable of absorbing water and permitting the passage of air through it. The walls of this refrigerator are, as above stated,
40 located about sixteen inches from the walls of the car and the burlap extends to the bottom of the car body to exclude dust from the contents of the refrigerator, the floor of the latter being located a few inches from the car
45 bottom and being composed of slats *d* spaced apart to permit the passage of air between them. The top of the refrigerator is preferably covered with galvanized sheet iron or zinc *d'*, and made slightly convex, said sheet
50 iron top being covered with burlap.

Between the top of the car and the top of

the refrigerator, at each end thereof, tanks *B* are located for the reception of water, the tanks in the respective ends of the car being connected by a pipe *f*. At each end of the
55 car a rubber tube or other suitable pipe *g* communicates with the tanks *B*, and these pipes may be coupled with similar pipes of adjacent cars, so that the tanks on all the cars of a train may be simultaneously filled with
60 water. Pipes *C* communicate with the tanks *B* and are disposed at the upper edges of the burlap walls *e* of the refrigerator and over the latter. Each pipe *C* is provided with a
65 number of cocks *h* adapted to discharge water on the burlap, the amount of water discharged being regulated by the valves in said cocks, which latter will be regulated and adjusted
70 by the attendant who enters between the refrigerator wall and the wall of the car.

One or both walls of the refrigerator will be made with a door or doors *i*. A number of pipes *j* communicate with the refrigerator chamber and extend through the roof of the
75 car so as to permit a circulation of air through said chamber.

From the construction and arrangement of parts above described it will be seen that when the burlap walls of the refrigerator shall have been wet, the air passing through the perfora-
80 tions in the walls of the car will also pass through the wet burlap and become cooled, said air entering the interior of the refrigerator and escaping through the pipes *j*, thus effectually refrigerating the contents of the car
85 or more strictly speaking, the refrigerator chamber. The pipes *j* also serve to convey vitiated air from the fruit or other contents of the refrigerator chamber.

The proper circulation of air through the
90 car when the latter is in rapid motion will not be diminished as in the case of refrigerator cars as heretofore constructed, but the faster the car travels, the better will be the refrigerating effect.

95 My improvements are exceedingly simple in construction, cheap to manufacture, save all expense for ice and are effectual, in every respect, in the performance of their functions.

Various slight changes might be made in
100 the details of construction of my invention without departing from the spirit thereof or

limiting its scope and hence I do not wish to limit myself to the precise details of construction herein set forth, but,

5 Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a refrigerating car, the combination with a car body having air holes therein, of a refrigerator located within said car body a
10 sufficient distance so that aisles are formed entirely around the refrigerator and between the latter and the car body, the walls of the car body composed of absorbent material, and means for moistening the said material, sub-
15 stantially as set forth.

2. In a refrigerating car, the combination with a car body having openings therein for

the entrance of air, of a refrigerating chamber the outer walls of which are formed of absorbent material which extends to the bottom of
20 the car and this chamber having a slatted floor located a short distance above the floor of the car whereby an air space is formed between the two bottoms, and means for supplying
25 water to the absorbent material, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JAMES MONROE GILSTRAP.

Witnesses:

M. QUINLAN,

R. M. TURNER.