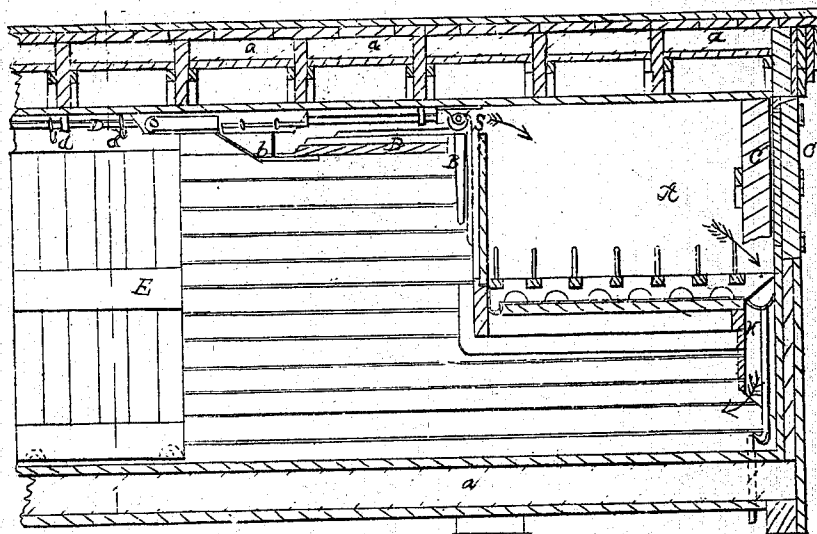


J.B. Sutherland. Refrigerator Car.

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Fig. 1.



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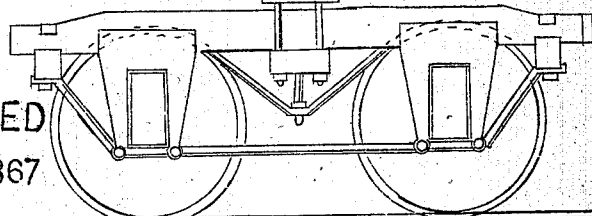
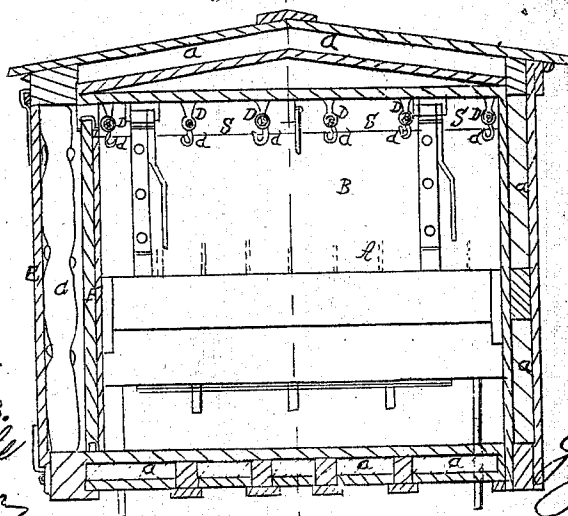


Fig. 2.



Witnesses.
Thos. Crockett
J. A. Hunter

Inventor.
J. B. Sutherland
Per *[Signature]*
Attorney

UNITED STATES PATENT OFFICE.

J. B. SUTHERLAND, OF DETROIT, MICHIGAN.

IMPROVED REFRIGERATOR-CAR.

Specification forming part of Letters Patent No. **71,423**, dated November 26, 1867.

To all whom it may concern:

Be it known that I, J. B. SUTHERLAND, of Detroit, in the county of Wayne and State of Michigan, have invented a new and Improved Refrigerator-Car; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to an improved refrigerator-car; and consists in such an arrangement of the internal fittings of a double-walled, double-roofed, and double-floored car as to insure a constant circulation of the air within the car, so that the warmed air is conducted through ice-chests, and, thus cooled, returned to the body of the car.

In the accompanying drawings, Figure 1 is a vertical longitudinal section of one-half of my improved refrigerator-car, and Fig. 2 is a transverse section thereof at line *xx* of Fig. 1.

Similar letters of reference indicate corresponding parts.

The car is provided with two ice-chests, one of which is shown at A, the other being at the opposite extremity of the car. Each chest in a car of ordinary size will be constructed to contain about eight hundred pounds of ice. B is a flap, hung on hinges, which I prefer to have eccentric, and when it is desired to be opened it is held in position shown in Fig. 1

by the bolt *b*. The car is double-walled, double-roofed, and double-floored, as shown at *a*, and the space between the walls may be filled with sawdust, felt, or other appropriate material, or may be left unfilled. In front and rear ends of the car are doors C C', to enable ice to be supplied to the chest in case of need. D D are gas-pipes laid along the roof of the car, from which are hung the hooks *d d*, for hanging meat and other edibles. F is an inner slide-door, between which and the outer door E is interposed a mattress or matting, G, to keep the car as nearly air-tight as possible. A space above flaps B admits the passage of the warmed air to the ice-chests, where it is cooled, and passes, in direction of the arrows through space H, back into the body of the car.

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

The double-walled, double-roofed, double-floored car, having ice-chests A at each extremity, closed by the hanging flaps B, substantially as above described, having spaces S and F arranged so as to produce a constant circulation of the air in the car, in manner substantially as and for the purposes above set forth and described.

J. B. SUTHERLAND.

Witnesses:

J. N. A. S. CULLEN,
F. C. ADAMSON.