

(No Model.)

C. S. HARDY.
REFRIGERATOR CAR.

No. 509,807.

Patented Nov. 28, 1893.

Fig. 1.

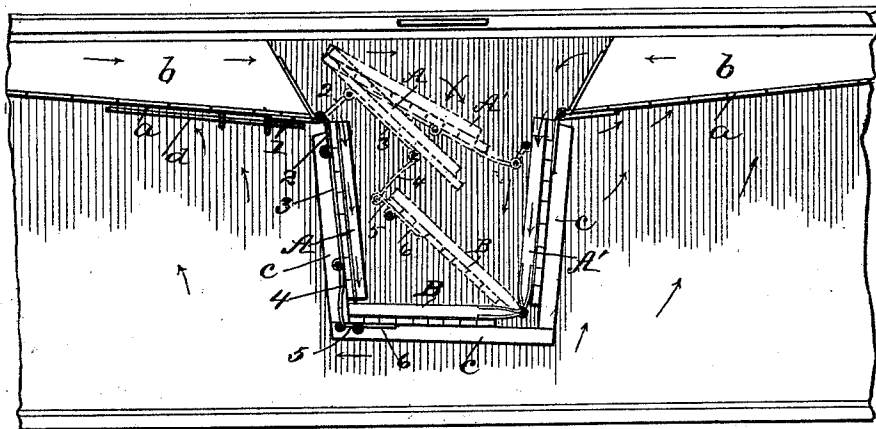


Fig. 2.

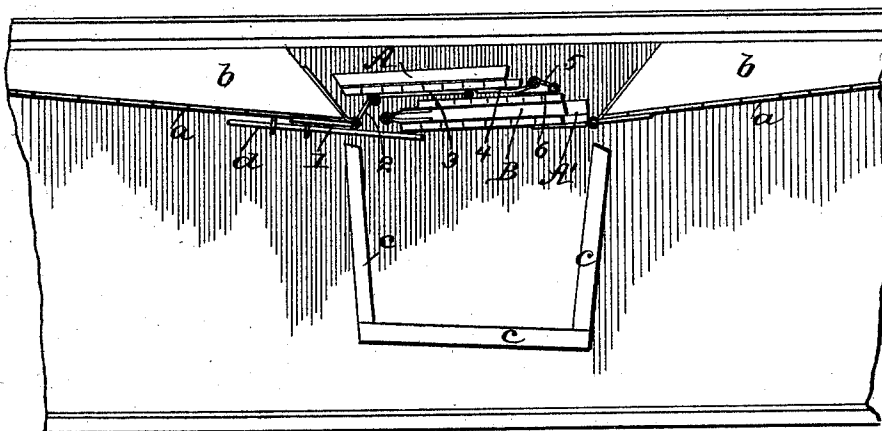
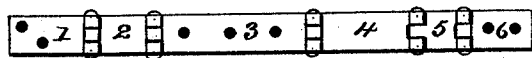


Fig. 3.



WITNESSES:
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CHARLES SAUNDERS HARDY, OF SAN DIEGO, CALIFORNIA.

REFRIGERATOR-CAR.

SPECIFICATION forming part of Letters Patent No. 509,807, dated November 28, 1893.

Application filed May 15, 1893. Serial No. 474,252. (No model.)

To all whom it may concern:

Be it known that I, CHARLES SAUNDERS HARDY, of San Diego, in the county of San Diego and State of California, have invented
5 a new and useful Improvement in Refrigerator-Cars, of which the following is a specification.

In an application for Letters Patent, No. 457,244, I have shown and described a refrigerator freight-car provided with a central,
10 pendent ice-box which is adapted to fold upward so as to lie parallel and close to the car roof and thus occupy a minimum space when not required for use.

15 My present invention embodies an improvement upon such former one, and consists in connecting the floor and one of the swinging side sections of the ice-box by such means and in such manner, that, while permanently
20 attached to each other, they are yet flexibly connected so as to be adapted to fold and unfold, and one to support the other in such operation, as hereinafter described.

In the accompanying drawings—Figure 1
25 is a longitudinal, vertical section of a box freight-car provided with my improvement, the folding ice-box sections being shown pendent, or in the position required for use. Fig. 2 is a similar section, but showing the parts
30 in the folded position. Fig. 3 is a detail view of the jointed plates.

As in my former invention, a false ceiling,
35 *a*, is secured to the car roof, and spaced therefrom by tapered beams, *b*, so as to provide air passages leading from the ends to the middle of the car. The foldable ice-box sections, *A*, *A'*, are hinged to said ceilings, *a*, *a*. The two opposite, swinging-side sections *A*, *A'*, are hinged to the opposite inner ends of
40 the ceilings *a*, *a*, and the floor, *B*, is in turn similarly attached to the lower edge of one (*A'*) of such sides, as shown. The permanent, yet flexible connection between the other side, *A*, and the ceiling, *a*, and floor, *B*, is effected by devices, or means, which I
45 will now proceed to describe in detail. As shown in Fig. 2, the said devices or means consist of a series of six metal plates, or bars, 1—2—3, &c., which are aligned and jointed
50 together. Three of these plates, to wit, 1, 3

and 6, are provided with screw holes, to adapt them to be secured respectively, to the ceiling, *a*, and to the side, *A*, and floor, *B*, of the ice-box, as shown. The several plates vary
55 in length—save the terminals 1 and 6—the central one 3, being longest, and those (2 and 4) which are jointed to it being shorter, though differing in length, and the one, 5, which connects the terminal plate, 6, to the next plate,
60 being shortest. The longest plate, 3, is secured, by screws, to the swinging side, *D*, transversely thereof, and the terminal plates, 1, and, 6, are similarly attached to the ceiling, *C*, and floor, *E*.

In practice, and so far as its function is concerned, the longest plate, 3, might be made in
65 two disconnected parts instead of one; but the form shown is preferable for strength, economy of manufacture, and rigidity of attachment to the swinging side, *A*, of the ice-box. As will be observed, (Fig. 1), there are two sets
70 of such aligned and jointed plates employed. When in the pendent position, (Fig. 1) as required for use, the side, *A*, and floor, *B*, are supported by cleats, *c*, attached to the sides of
75 the car which form the ends of the ice-box.

In order to fold the box sections into the position shown in Fig. 2, pressure is applied to the side, *A*, so that it and the floor, *B*, pass
80 successively into the positions shown by dotted lines in Fig. 1, until they finally attain the uppermost, or folded, position shown in Fig. 2, where they are secured by any suitable means—such as a bar, *d*, adapted to slide in
85 keepers. To lower the sections to the normal position, the said bar, *k*, is withdrawn, and the parts then assume substantially the same positions as when being folded.

What I claim is—

1. The combination, with a refrigerating
90 chamber, of the foldable ice-box sections and means substantially as described which suspend and flexibly but permanently connect such sections, whereby they are adapted to
95 fold and unfold in the manner specified.
2. The combination, with a refrigerating chamber, of the foldable ice-box sections and the connecting and suspending devices composed of a series of aligned and jointed plates
100 which are attached to two of said sections and

the ceiling, or roof, substantially as shown and described.

3. The combination, with a refrigerating chamber, of the foldable ice-box sections,
5 hinge connections for two of said sections, and the flexible, or jointed, yet permanent connections composed of the series of aligned and jointed plates which are attached to a side

and a floor section and the ceiling, whereby the said sections are caused to fold and lie so parallel, as shown and described.

CHARLES SAUNDERS HARDY.

Witnesses:

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