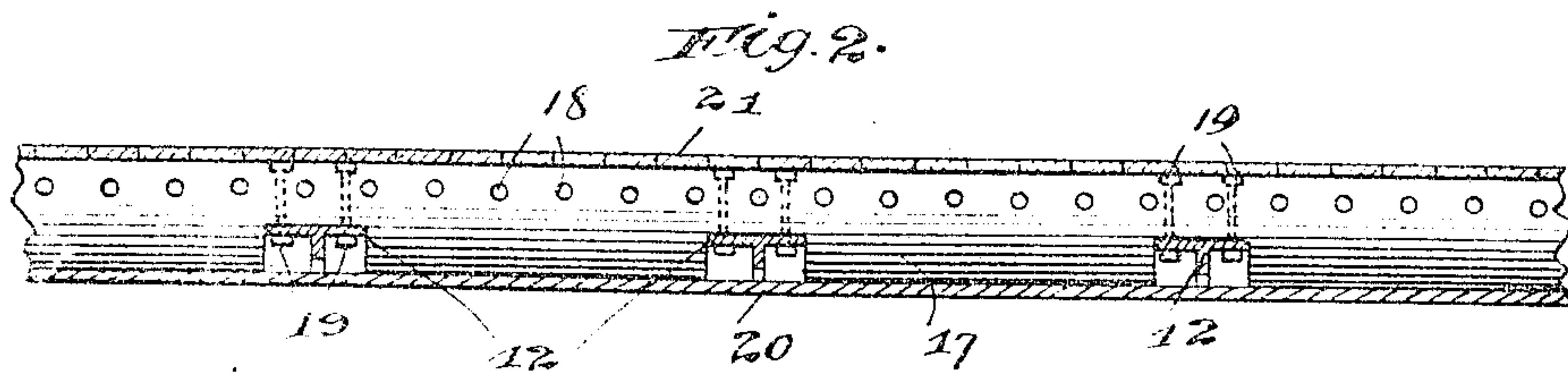
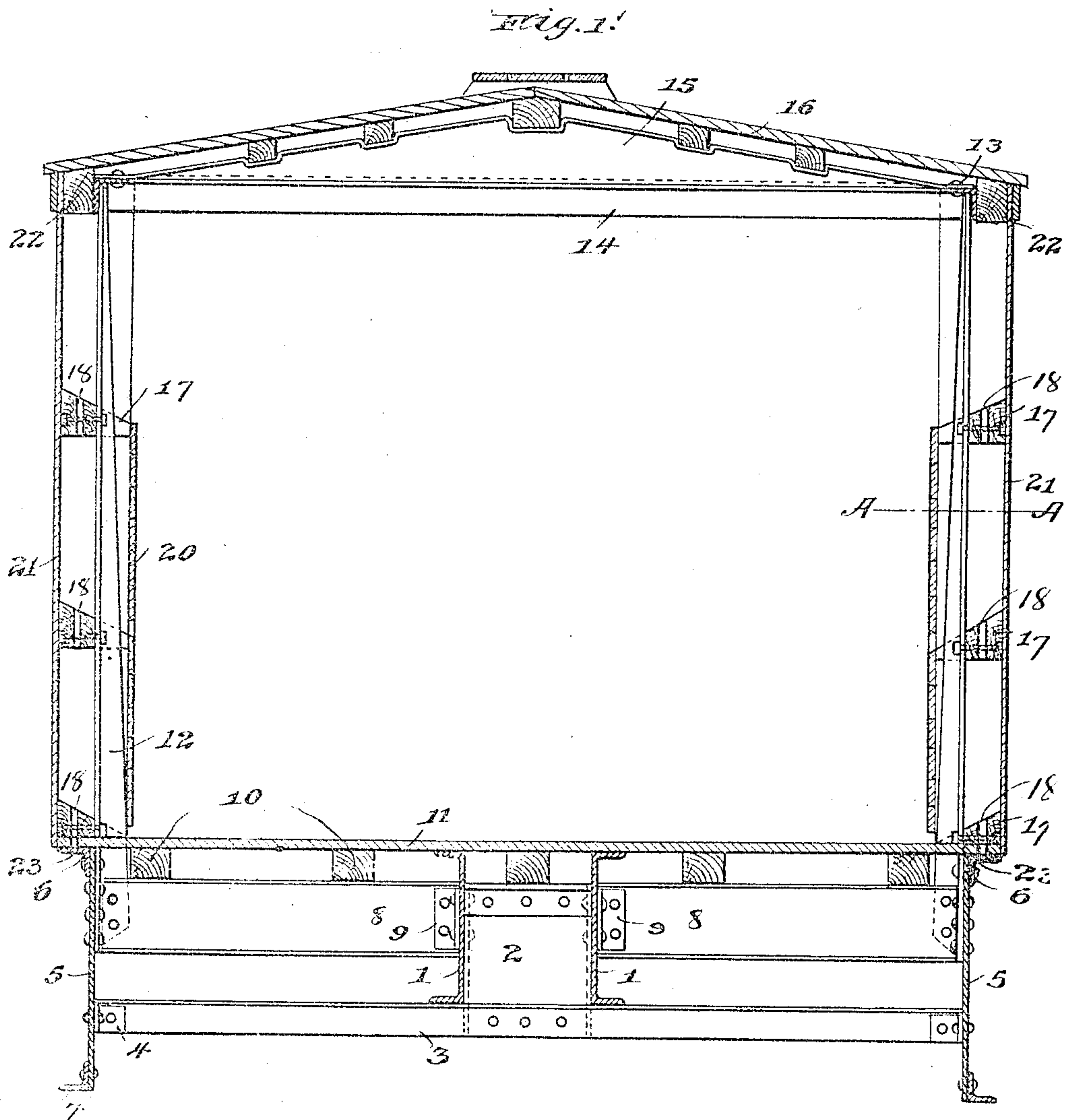


No. 831,647.

PATENTED SEPT. 25, 1906.

E. I. DODDS.  
REFRIGERATOR CAR.  
APPLICATION FILED JULY 6, 1905.



Witnesses  
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# UNITED STATES PATENT OFFICE.

ETHAN I. DODDS, OF PULLMAN, ILLINOIS, ASSIGNOR TO THE PULLMAN COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

## REFRIGERATOR-CAR.

No. 831,647.

Specification of Letters Patent.

Patented Sept. 25, 1906.

Application filed July 6, 1905. Serial No. 288,308.

*To all whom it may concern:*

Be it known that I, ETHAN I. DODDS, a citizen of the United States, residing at Pullman, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Refrigerator-Cars, of which the following is a specification.

My present invention relates to refrigerator-cars, and involves means to secure ventilation for the air-spaces between the inner and outer walls of the car, besides other novel features which will be at once apparent to those skilled in the art to which this invention pertains.

I have shown one embodiment of my invention in the car illustrated on the accompanying drawings, which form a part of this specification, and on which—

Figure 1 represents a transverse section of a car constructed according to my invention, and Fig. 2 is a horizontal section of the side wall of the car on the line A A.

Referring to the drawings, 1 1 represent the channel center sills of the car, spaced apart by the short channel-section 2, which extends below the lower flanges of the center sills, and to this extension is riveted the needle-beam 3, secured to the side sills 5 by means of the angle-plates 4. The angle-bar 6 is riveted to the side sill at its upper edge and acts as a compression and strengthening member. At the lower edge of each side sill is riveted a similar angle-bar 7, which acts as a tension member. The cross-bearers 8 are fastened to the center sills by means of the angle-plates 9, which are riveted both to the cross-bearers and to the center sills. The floor-beams 10 are secured to the upper flanges of the cross-bearers by any suitable means, such as bolts or screws, and the floor 11 is laid above these floor-beams and nailed or otherwise secured in place. The side stakes 12, which are made from I-beams by cutting the webs on a bias, are riveted to the ends of the cross-bearers, the latter being secured to the outstanding web of the side stake. The flanges of the side stakes are riveted to the side sills, as is shown on the drawings.

The longitudinal angle-bars 13 and the cross angle-bars 14 hold the upper ends of the side stakes in place. The carline 15 supports the roof 16, which is fastened thereto in any approved manner. The longitudinal

nailing-strips 17 are secured to the side stakes by means of bolts 19 or similar appliances, the side stakes fitting in recesses in the nailing-strips, as is shown in Fig. 2, and each nailing-strip being also provided with any desired number of ventilating-holes 18. The inner and outer sheathing 20 and 21 of the car is nailed to these strips, leaving air-spaces between them, the various air-spaces having communication with each other through the perforations in the nailing-strips. The beam 22 at the upper edge of the car comprises means for securing the upper ends of the outside boards 21 and is also a support for the roof.

The angle-bar 6 is provided with perforations 23, which permit communication between the outer air and inner air chambers, and by this construction of ventilating means the moisture, which will tend to collect in the air-chambers between the inner and outer walls of the car, may be dissipated. This ventilation means also obviates the collection of disagreeable odors in the walls of the car.

Many mere mechanical changes may be made in such a car and yet the construction would fall within the scope of my invention as defined in the appended claims.

This patent is intended to embrace only so much of the disclosure made herein as is covered by the claims.

I claim—

1. In a refrigerator-car, the combination of nailing-strips having ventilating-holes therethrough, and inner and outer sheathing secured to said nailing-strips, substantially as described.

2. In a refrigerator-car, the combination of side stakes, nailing-strips fastened thereto having ventilating-holes therethrough, and inner and outer sheathing secured to said nailing-strips, substantially as described.

3. In a refrigerator-car, the combination of a side sill having a flange with one or more ventilating-perforations, side stakes, perforated nailing-strips secured to said stakes, and inner and outer sheathing fastened to said nailing-strips, substantially as described.

4. In a refrigerator-car, the combination of a side sill, an angle-bar fastened to said side sill, one flange of said angle-bar having one or more ventilating-perforations, side stakes, perforated nailing-strips secured to

said stakes, and inner and outer sheathing fastened to said nailing-strips, substantially as described.

5. In a refrigerator-car, the combination of a side sill, an angle-bar, one of whose flanges has one or more ventilating-perforations, riveted to said sill, one or more side stakes, one or more perforated nailing-strips

secured to the said side stakes, said stakes fitting in recesses in the nailing-strips, and to inner and outer sheathing nailed to said strips, substantially as described.

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