(No Model.) 2 Sheets—Sheet 1.

G. F. BROWN, Jr.

VENTILATOR SCREEN FOR REFRIGERATOR CARS.

No. 579,087. Patented Mar. 16, 1897.

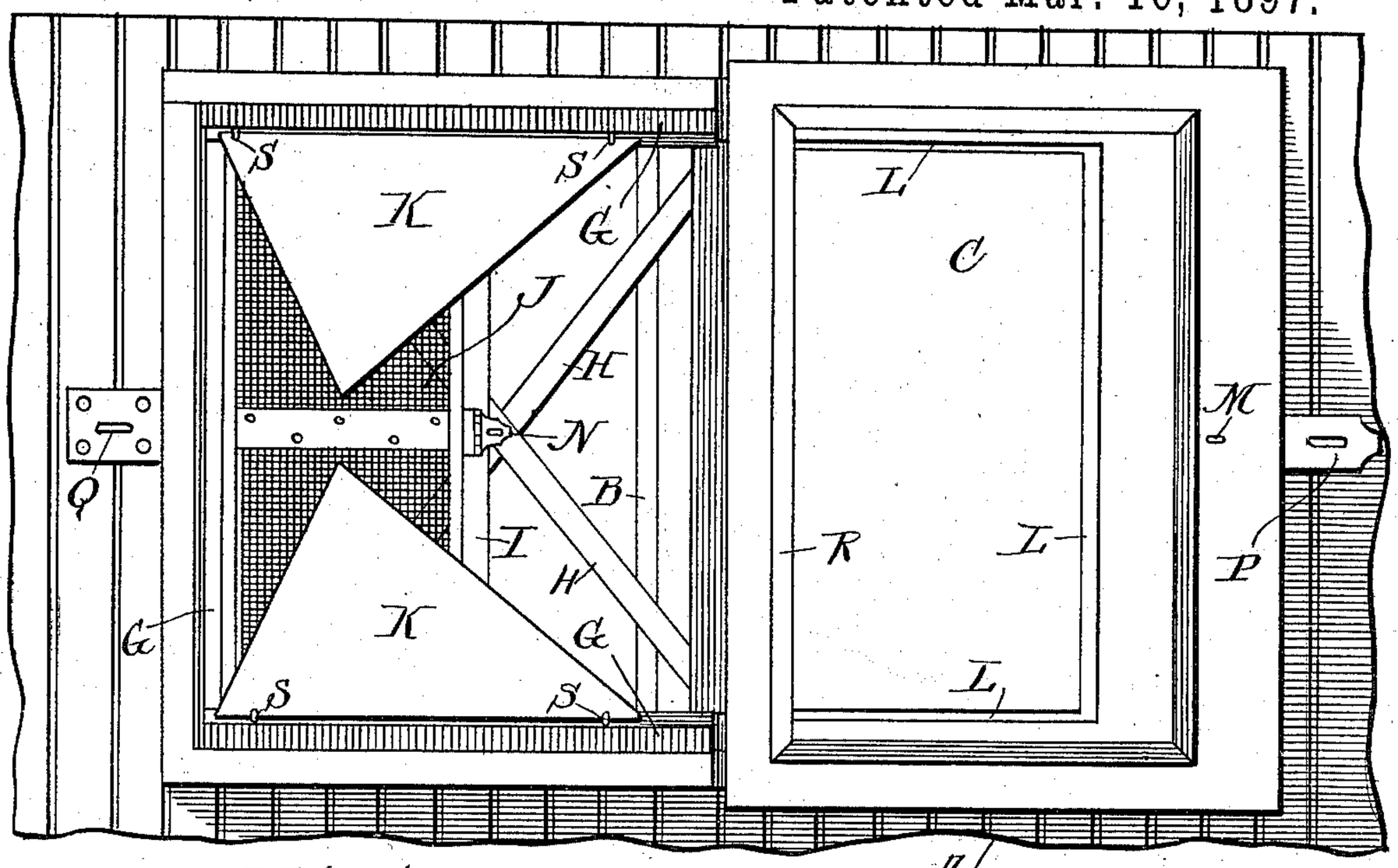

Fig 1

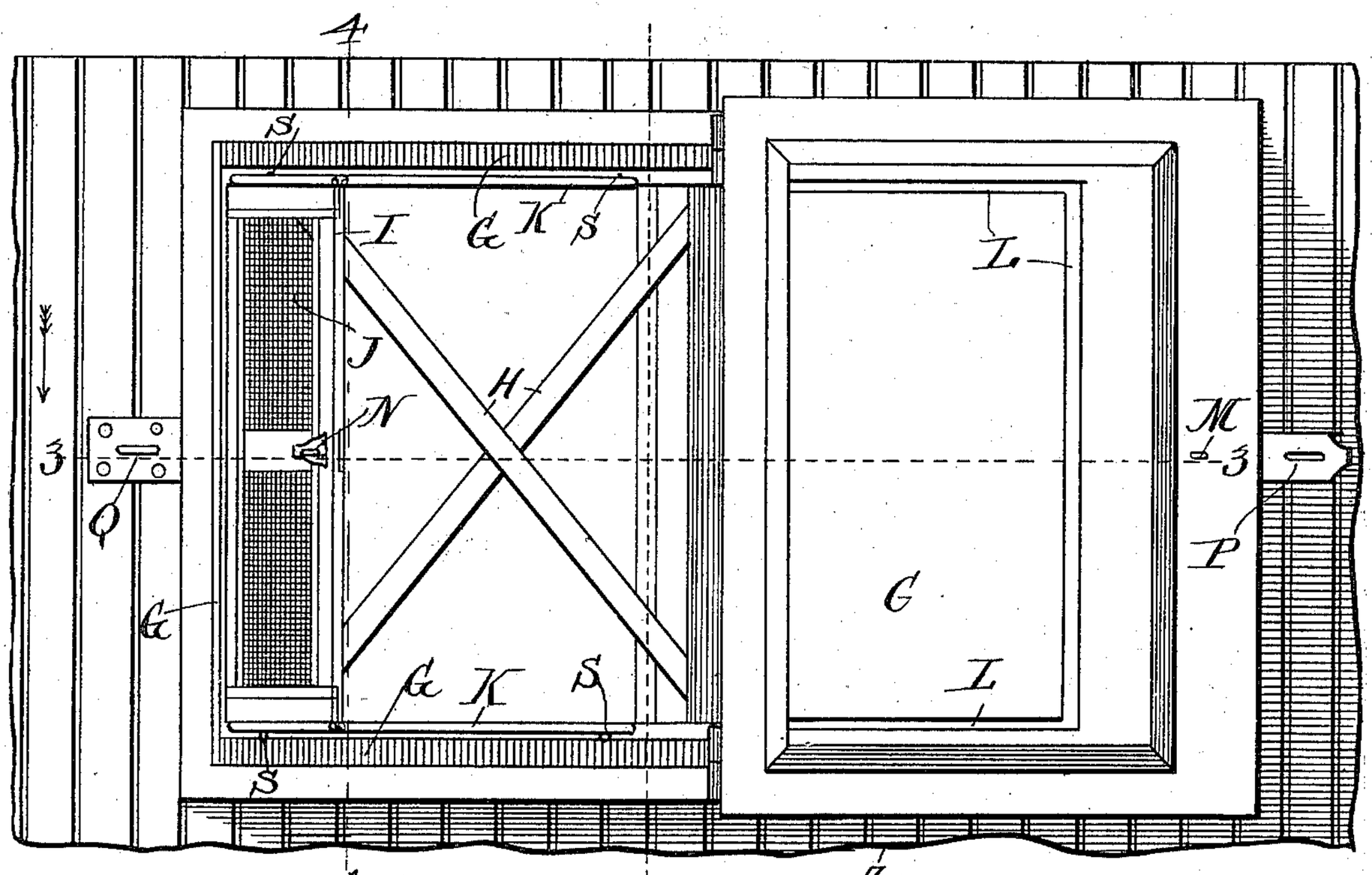

Fig 2

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(No Model.) 2 Sheets—Sheet 2.

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Fig 5

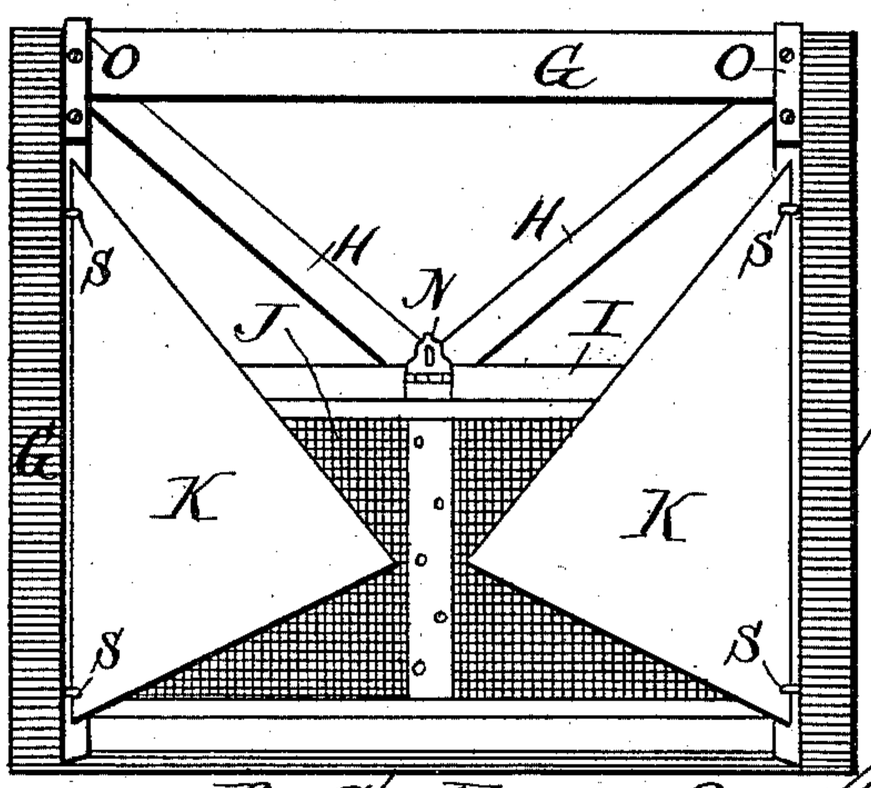


Fig 3

Fig 4

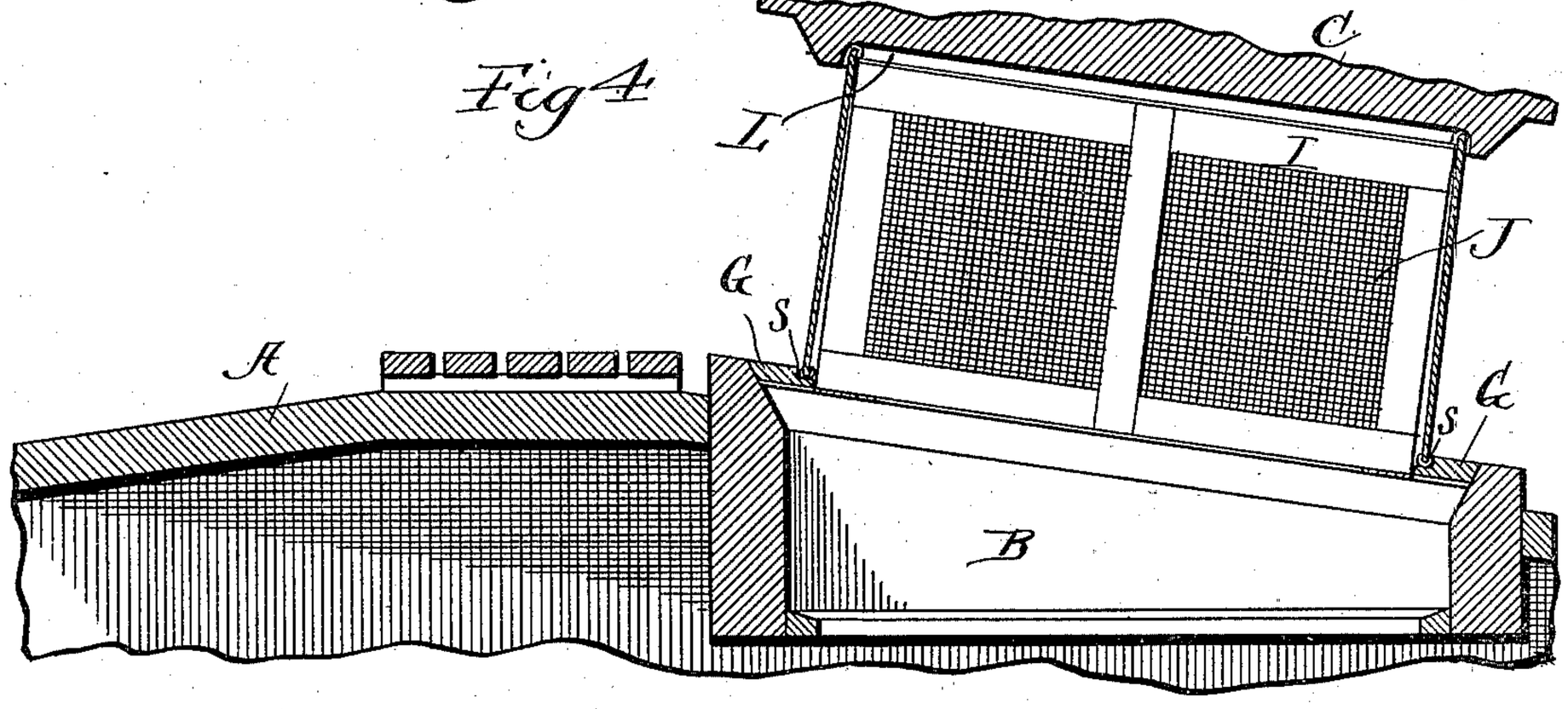
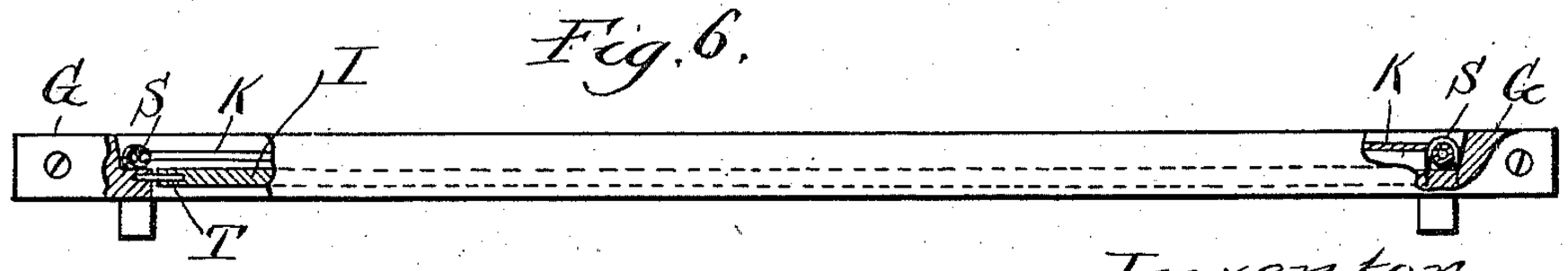


Fig. 6.



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UNITED STATES PATENT OFFICE.

GEORGE F. BROWN, JR., OF CHICAGO, ILLINOIS, ASSIGNOR TO THE WICKES REFRIGERATOR CAR COMPANY, OF ROCHESTER, NEW YORK.

VENTILATOR-SCREEN FOR REFRIGERATOR-CARS.

SPECIFICATION forming part of Letters Patent No. 579,087, dated March 16, 1897.

Application filed January 10, 1896. Serial No. 574,966. (No model.)

To all whom it may concern:

Be it known that I, GEORGE F. BROWN, Jr., a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Ventilator-Screens for Refrigerator-Cars, which is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of my improved ventilator-screen placed in the ice-aperture in the car, showing the folding parts folded down upon the screen-frame with the lid of the ice-aperture thrown back. Fig. 2 represents the same plan view with the folding parts of the ventilator-screen brought up into position for the lid to be turned over thereon. Fig. 3 is a sectional view of the same, taken at the line 3 3, Fig. 2, with the lid thrown over the ventilator-screen. Fig. 4 is a sectional view of the top of the refrigerator-car, taken at the line 4 4, Fig. 2, looking to the right. Fig. 5 is a plan view of my ventilator-screen removed from the car, and Fig. 6 is an end view of the front end of said screen detached from the car with a portion cut away to show the hinges of the side wings of the ventilator-screen.

The object of my invention is to make a ventilator-screen that can be readily applied to refrigerator-cars which have an aperture through the roof of the car for supplying the car with ice, which screen can be readily folded into compact form and slid on ways into a recess in the roof of the car out of the way when the car is used as a refrigerator-car and readily drawn over the ice-aperture and used in connection with the lid for the ice-aperture to make a ventilated car when it is desired to use the car for transporting fruit, &c.

I construct the roof of the car for my ventilator-screen substantially as shown in Patent No. 534,832, and my screen is housed when not in use in substantially the same manner as fully set forth and described in the aforesaid Letters Patent; but my screen is constructed in a new and novel manner, by which I am enabled to accomplish certain new and important results not accomplished in the aforesaid patent.

My invention consists of the elements and combination of elements hereinafter fully described and made the subject-matter of the claims hereof.

To enable those skilled in the art to understand fully how to make and use my invention, I will describe the same with particularity.

In the accompanying drawings, A represents a portion of the body of the refrigerator-car constructed in the usual manner.

B is an aperture through the roof of the car for supplying the car with ice.

C is the cover or lid for that aperture.

D is a raised deck on the roof of the car, in which there is a space or recess E, provided with guideways F on each side thereof. The ventilator-screen, when folded, is slid back on these guideways F into the space E, where it is out of the way and completely housed when the car is being used as a refrigerator-car. The construction of this raised deck with the space or recess and guideways for the ventilator-screen is substantially the same as shown and described in the said Letters Patent No. 534,832.

My improved ventilator-screen is composed of a ventilator-frame G with strengthening-braces H. There is hinged to the front of the screen-frame G an auxiliary frame I, carrying the screen-cloth J. There is also hinged to the frame G triangular side wings K, preferably of sheet metal, there being one of these on each side of said frame. The auxiliary screen-frame I, which carries the screen-cloth, and the wings K fold down upon the frame G, as clearly shown in the drawings, when they can be slid back into the space or recess E, sliding on the guides F.

When it is desired to use said ventilator-screen, the lid or cover C of the ice-aperture in the roof of the car is thrown back, as shown in Figs. 1 and 2 of the drawings, when the ventilator-screen is pulled out from the said recess over the ice-aperture B. The wings K and the auxiliary frame I, which carries the screen-cloth, are then thrown up into a vertical position, as shown in Figs. 3 and 4, and the lid swung over upon the said wings and auxiliary screen-frame. The upper edges of the wings and auxiliary screen-frame pass into grooves on the under side of the lid or cover C, which firmly supports them in this

upright position. The grooves in the under side of the said lid or cover are marked L. I also place upon the under side of said lid a staple M and upon the auxiliary screen-frame I a folding hinged latch or hasp N for locking the lid to the ventilator-screen when it is in use. There is attached to the rear member of the ventilator-frame G some stops O, which prevent said ventilator-screen from being entirely removed from the car and at the same time hold the frame in position under the top of the elevated car-deck D in such position that when the lid C is locked to the ventilator-screen the screen cannot be lifted from its seat over the ice-aperture B to admit of the entrance into the car through the ice-aperture. This is apparent from the fact that the edge of the cover C of the hood bearing down upon the rear member of the ventilator-frame G and the stops carried by the said frame bearing against the edge of the curb around the ice-aperture effectually prevent the ventilator-screen from being tipped over backward. Since the lid C is locked to the screen, the lid likewise cannot be tipped backward, and the ice-aperture is thereby completely closed against intrusion.

P and Q are the hasp and staple for locking the lid of the ice-aperture to the car when the screen is in its housing and the car is being used as a refrigerator-car. It will be observed that the shoulder R of the lid C of the ice-aperture extends downward past the front of the space or recess E and holds the screen securely therein when the lid is closed into the ice-aperture. I have shown in the drawings hereto attached a staple-hinge S for hinging the wings K to the ventilator-frame G of my ventilator-screen, and I have shown a pin-hinge T, with which I hinge the auxiliary frame I to the main frame of the screen; but any form of hinges may be used, and I do not desire to be understood as limiting my invention to any particular hinges for that purpose.

Having described the construction and operation of my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a ventilator-car, an ice-aperture; a lid adapted to close the same; a ventilator-frame; an auxiliary screen-frame carrying screen-cloth hinged thereto; wings pivoted to the opposite sides of the said ventilator-frame, the wings and screen-frame being capable of being folded down upon the ventilator-frame, the said lid being pivotally connected to the car and adapted to swing down upon the hinged auxiliary frame and wings, substantially as described.

2. In a ventilator-car, a ventilator-frame, provided with an auxiliary screen-frame hinged thereto, and side wings also hinged to the ventilator-frame and adapted to fold thereon; and a raised deck on the car having a recess or space therein within which the said ventilator-frame, with its folded attachments thereto, can be housed, substantially as described.

3. In a ventilator-car, a ventilator-frame with an auxiliary screen-frame hinged thereto; triangular side wings hinged to the said ventilator-frame; and a lid attached to the car, provided on its under side with a groove into which the upper edge of the auxiliary frame and wings pass when the lid is swung over upon them, substantially as described.

4. In a ventilator-car, a ventilator-frame; an auxiliary screen-frame carrying screen-cloth hinged thereto; wings hinged to said ventilator-frame; a lid attached to the car and adapted to be swung over upon the wings and auxiliary screen-frame; and a locking device for locking the lid down upon said wings and auxiliary screen-frame, substantially as described.

GEORGE F. BROWN, JR.

Witnesses:
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A. A. MURRAY.