

No. 620,174.

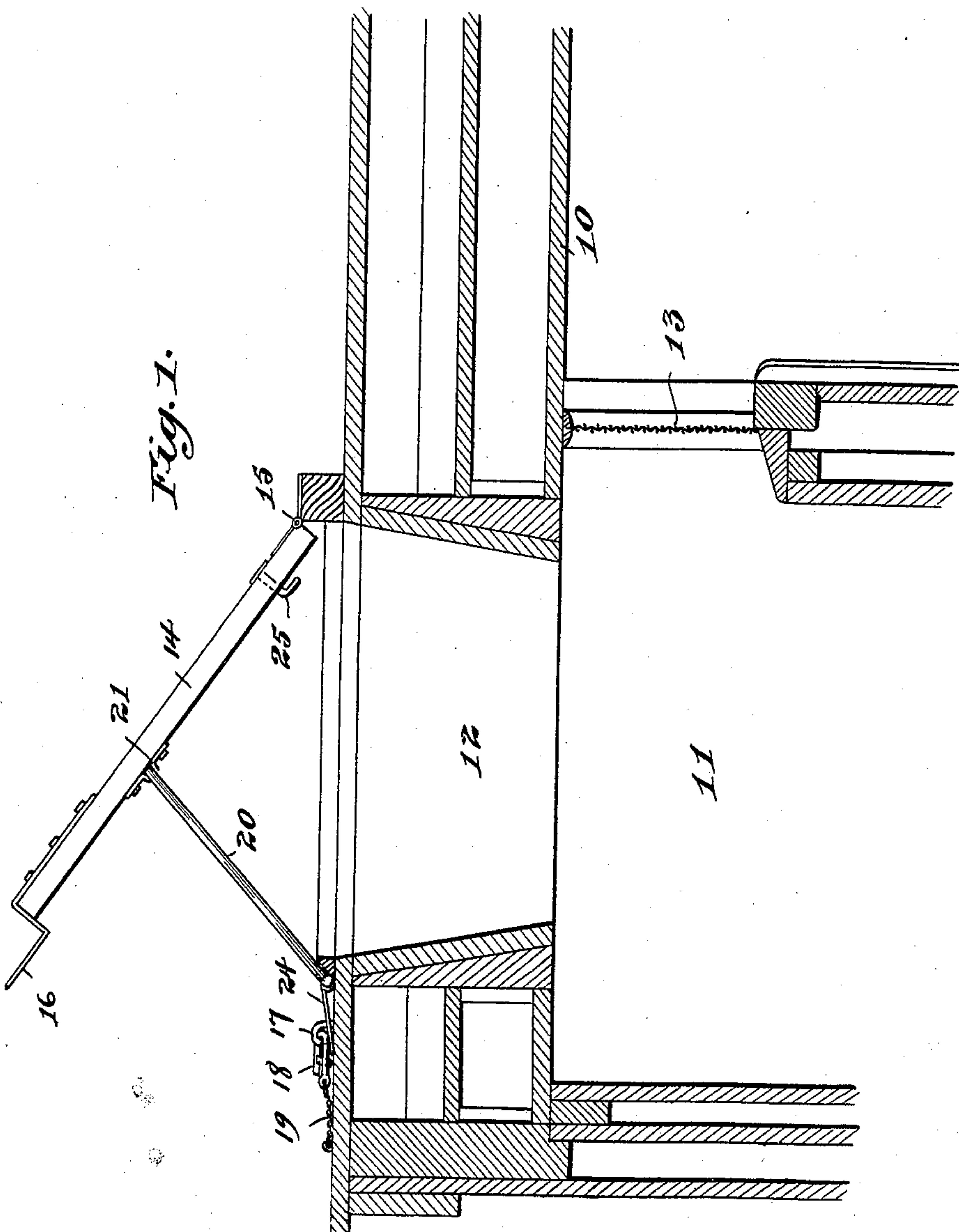
Patented Feb. 28, 1899.

E. R. M. PIERCE.
VENTILATOR FOR REFRIGERATOR CARS.

(Application filed Feb. 16, 1898.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses,
J. M. Mann,
Frederick Goodrum

Inventor,
Edgar R. M. Pierce,
By Offield, Dowler & Hutchinson,
Attys.

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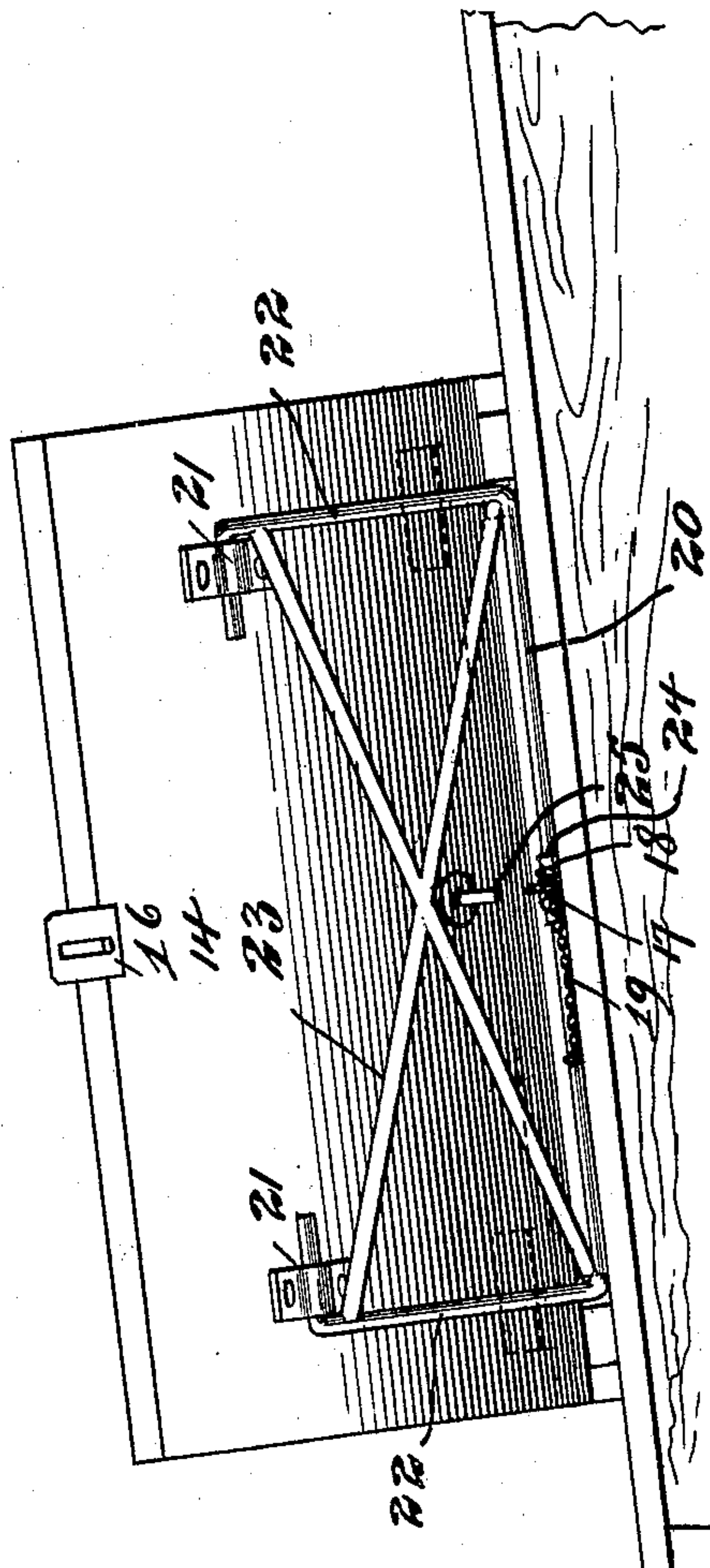
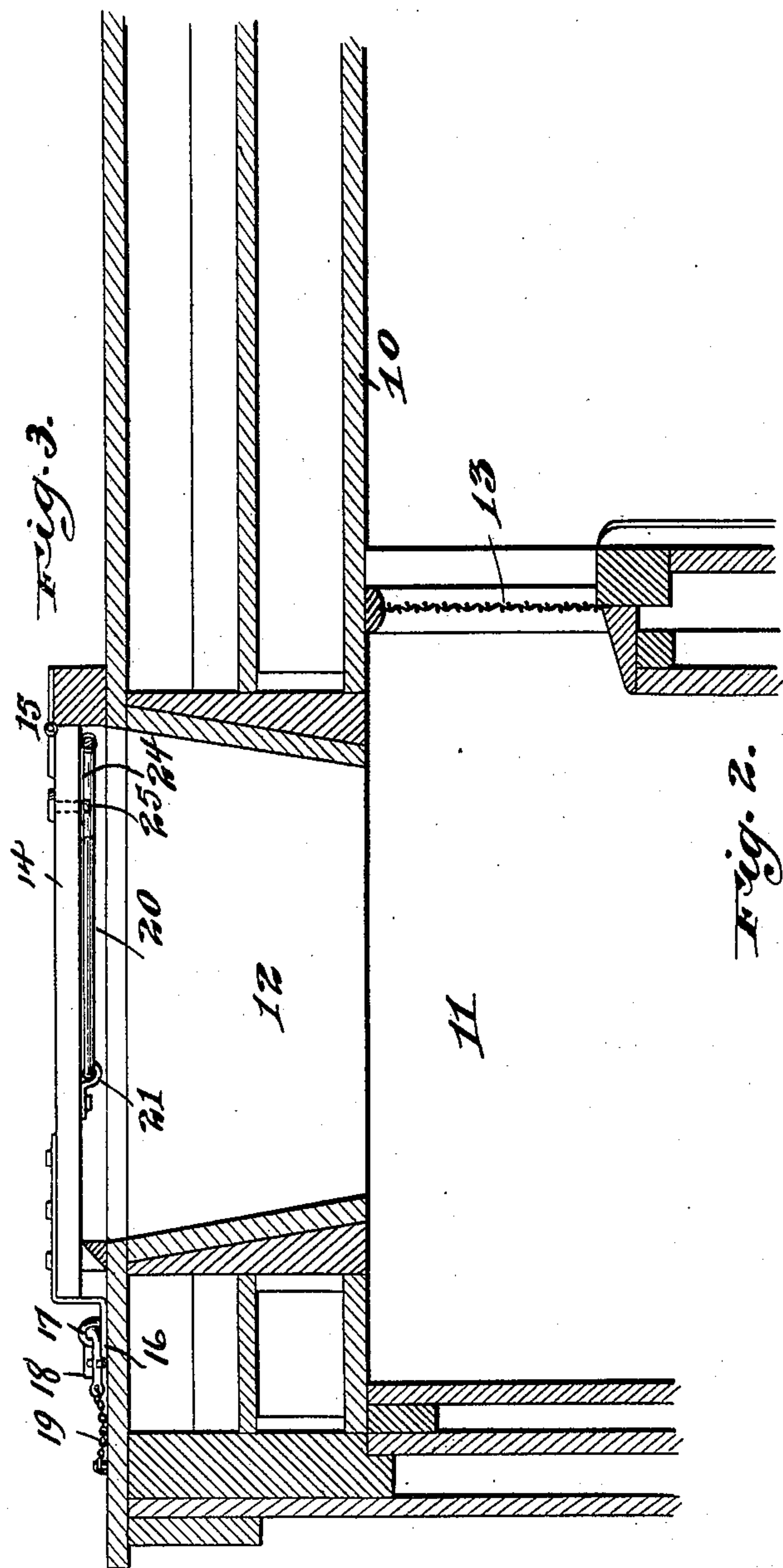
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VENTILATOR FOR REFRIGERATOR CARS.

(Application filed Feb. 16, 1898.)

(No Model.)

2 Sheets—Sheet 2.



Witnesses,
J. Mann,
Frederick Goodman

Inventor,
Edgar R. M. Pierce,
By Offield, Dowle & Smith, Attys.

UNITED STATES PATENT OFFICE.

EDGAR R. M. PIERCE, OF SACRAMENTO, CALIFORNIA, ASSIGNOR TO
ARMOUR & CO., OF CHICAGO, ILLINOIS.

VENTILATOR FOR REFRIGERATOR-CARS.

SPECIFICATION forming part of Letters Patent No. 620,174, dated February 28, 1899.

Application filed February 16, 1898. Serial No. 670,470. (No model.)

To all whom it may concern:

Be it known that I, EDGAR R. M. PIERCE, of Sacramento, in the county of Sacramento and State of California, have invented certain new and useful Improvements in Ventilators for Refrigerator-Cars, of which the following is a specification.

This invention relates to ventilators for refrigerator-cars, and has for its object to provide a simple and efficient construction whereby the interior of such cars may be ventilated, while at the same time access to said interiors by unauthorized persons is prevented. In cars of this character in which there are provided in the car-roof ice-holes which are closed by hinged doors or covers ventilation is sometimes effected by supporting the doors or covers at an angle by means of triangular side pieces, the mouth or opening of the structure being closed by means of a screen. In practice it has been found that this construction is complicated and costly, liable to readily get out of order, and serves to obstruct the admission of air to the car interior. These objections are obviated by the present construction, wherein the triangular side pieces and screen are entirely dispensed with, the door or cover being held in an inclined position by means of a frame hinged thereto at a point some distance inward from the free edge of the door or cover and adapted to be secured at its other margin to the car-roof. This frame is suitably constructed to prevent access to the interior of the car through the ice-opening from the front or end of the opening formed by the angular position of the door or cover, and by reason of its being connected to the door or cover at a point far back from its edge it also serves to prevent access to the ice-hole from the sides of the opening thus formed. In other words, this single frame by reason of its construction and application so obstructs the opening as to prevent the passage of the human body without the assistance of the triangular side pieces and screen heretofore employed and at the same time offers a minimum of obstruction to the passage of the air and insures more efficient ventilation.

In the accompanying drawings, Figure 1 is

a vertical horizontal sectional view through one of the ice-holes of a car, the door or cover and its frame being shown in elevation and in an open position. Fig. 2 is an end elevation of the same parts; and Fig. 3 is a view similar to Fig. 1, showing the door or cover closed.

In said drawings, 10 indicates the body of a refrigerator-car, having an ice-tank 11 and ice-hole 12 in the roof of the car above said tank. Preferably there are two of these ice-holes at each end of the car.

13 indicates an air-passage establishing communication between the ice-tank 11 and the interior of the car, which air-passage may be provided with a screen, as shown. Each ice-hole is provided with a door or cover 14, hinged to the car at the rear or inner edge of the ice-hole, as shown at 15, and provided with suitable means for locking the same in a closed position. In the present instance this provision consists of a slotted plate or hasp 16, secured to the free edge or margin of the door or cover and adapted to receive a fixed staple 17 on the car-roof when the door or cover is closed. A seal-lock or padlock 18, which may be secured to the car by a chain 19 to prevent misplacement or loss, serves by its engagement with the staple 17 to secure the door or cover in a closed position.

20 indicates the supporting-frame, which is hinged to the under side of the door or cover 14 at a point located at a considerable distance inward from the free margin thereof and near the central portion of said door or cover, as shown at 21. This frame may be of any suitable construction for its purpose, and in practice I prefer the form shown, in which the frame consists of an outer marginal portion 22 and cross-bars 23. The free edge of the frame is adapted to be secured to the car in any suitable manner, and for this purpose I have shown a slotted plate or hasp 24, pivoted to the margin of the frame and adapted to engage with the staple 17.

It will be seen that when the door or cover is raised to the inclined position shown in Fig. 1 and the free edge of the frame is locked to the car-roof said frame serves not only to support the door or cover in its inclined po-

sition, but also to prevent unauthorized access to the interior of the car through the ice-hole. The cross-bars 23 prevent entrance from the end of the car, while the lateral members of the frame, owing to the location of their pivotal connection with the cover, restrict the space at the sides, so as to prevent the possibility of a human body passing into the ice-hole at those points. The pivoted side pieces heretofore employed are entirely dispensed with, as is also the screen, the comparatively open frame offering very much less impediment to the passage of the air than the screen heretofore employed, so that the inclined door or cover is enabled to deflect downward into the ice-hole and the interior of the car a comparatively large quantity of air.

When it is desired to close the door 14, the frame 20 may be swung back into the position shown in Fig. 3 and the hasp 24 may be slipped over a rotary button or hook 25 on the under side of the door or cover, so that by turning said button or hook transversely of the slotted hasp the frame will be held in position against the under side of the door or cover, as shown in Fig. 3, where it is out of harm's way.

I have described a construction embodying my invention in one form; but it is obvious that modifications thereof may be made without departing from the principle of my invention, and I therefore do not wish to be understood as limiting myself to the precise details hereinbefore described, and shown in the drawings.

I claim—

1. In a ventilator for refrigerator-cars, the combination, with a car-body having in its

roof an ice-hole of such size as to permit access to the ice-chamber by the passage of the human body, of a door or cover hinged to the margin of said ice-hole and adapted to be placed at an angle to the roof, and a supporting-frame connected to the door or cover, said frame having its lateral margins at the sides of the ice-hole, and the connection between said frame and the door or cover being at a point some distance inward from the free edge of the latter in such position as to prevent the passage of the human body to the interior of the car through the ice-hole, substantially as described.

2. In a ventilator for refrigerator-cars, the combination, with a car having in its roof an ice-hole of such size as to permit the passage of the human body, of a door or cover hinged to the margin of said ice-hole, a supporting-frame of a width substantially equal to that of the ice-hole and comprising a continuous marginal portion and obstructive cross-bars, said supporting-frame being pivotally connected to the door or cover at a point some distance inward from its free edge in such position as to prevent the passage of the human body to the interior of the car through the ice-hole, a hasp or slotted plate pivoted to the free margin of said frame, locking devices on the car-roof to receive said hasp when the door or cover is open, and means carried by the cover to receive said hasp and hold the frame against the under side of the car-door, substantially as described.

EDGAR R. M. PIERCE.

Witnesses:

W. A. RICHARDSON,
J. W. McCLYMONDS.