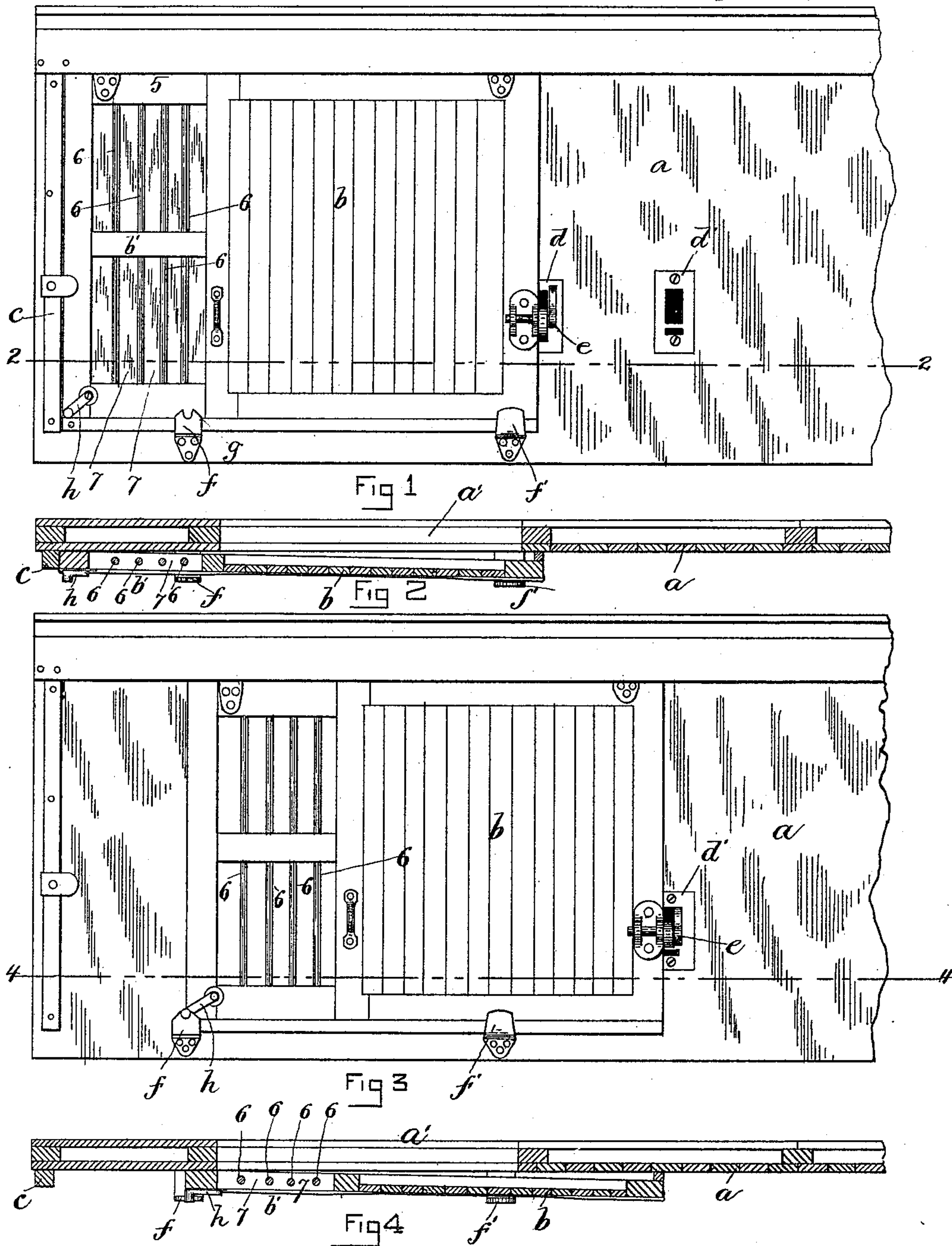


(No Model.)

O. P. HIX.
FREIGHT CAR AND DOOR THEREFOR.

No. 459,905.

Patented Sept. 22, 1891.



WITNESSES
C. G. Bartlett
Edwin W. Hamlen

INVENTOR
O. P. Hix
by Wright Brown Crossley
Attys.

UNITED STATES PATENT OFFICE.

OLIVER P. HIX, OF ROCKLAND, MAINE, ASSIGNOR TO THE DUNHAM MANUFACTURING COMPANY, OF BOSTON, MASSACHUSETTS.

FREIGHT-CAR AND DOOR THEREFOR.

SPECIFICATION forming part of Letters Patent No. 459,905, dated September 22, 1891.

Application filed October 7, 1890. Serial No. 367,323. (No model.)

To all whom it may concern:

Be it known that I, OLIVER P. HIX, of Rockland, in the county of Knox and State of Maine, have invented certain new and useful
5 Improvements in Freight-Cars and Doors Therefor, of which the following is a specification.

This invention relates to freight-cars which are used both for carrying freights which require the admission of air to the interior of
10 the car and those which do not require the admission of air.

The invention consists in the improved construction of the car and its sliding door hereinafter described, whereby the door-opening
15 may be tightly closed to prevent the admission of air therethrough when carrying freights that do not require ventilation, and may be left partly open so as to permit free ventilation
20 of the car without permitting access to the contents thereof, as I will now proceed to describe.

In the accompanying drawings, forming a part of this specification, Figure 1 represents
25 a side elevation of a portion of a freight-car provided with my improvement, the doorway being closed to prevent the admission of air. Fig. 2 represents a section on line 2 2 of Fig. 1. Fig. 3 represents a side elevation showing
30 the door adjusted to permit ventilation of the car. Fig. 4 represents a section on line 4 4, Fig. 3.

The same letters of reference indicate the same parts in all the figures.

35 In the drawings, *a* represents the side of a freight-car having the usual doorway or opening *a'*.

b represents a door which is supported by hangers adapted to run on a track or guide
40 above the door in the usual way, and is formed to cover the doorway and practically prevent the admission of air therethrough when the door is closed. The door is provided at its forward end with a ventilating-section *b'*,
45 which is an extension of the door, and is of such construction that it permits the free passage of air through it. Said section is preferably composed of a marginal frame 5, forming a continuation of the frame of the main
50 body of the door, and vertical rods or bars 6, secured to said frame and separated by open-

ings 7, through which the air may pass freely through the section *b*. I do not limit myself, however, to this precise construction, but may make the ventilating-section in any other suitable way.

c represents the vertical stop or bar which is attached to the side of the car in position to arrest the front end of the door when the latter is fully closed. Said bar or stop, instead
60 of being flush with the forward end of the doorway or nearly so, as usual, is located at a considerable distance from the front end of the doorway, the stop being separated from the doorway by a space the width of which is
65 about equal to the width of the ventilating-section *b'* of the door, so that when the door is fully closed, as shown in Figs. 1 and 2, the ventilating-section will overlap a part of the side of the car at one end of the doorway and
70 the solid part *b* of the door will tightly close the doorway. When the door is moved back from the position shown in Figs. 1 and 2 to that shown in Figs. 3 and 4, the ventilating-section *b'* is brought opposite a portion of the
75 doorway, so that free entrance of air through said section into the car is permitted.

The car and door are provided with suitable means for holding or locking the door in either of the positions above described, the
80 preferred means being a movable latch *e* on the rear edge of the door and two sockets or socketed plates *d d'* attached to the side of the car at the rear end of the doorway. The socketed plate *d* is arranged to co-operate
85 with the latch *e* in locking the door when the latter is fully closed, as shown in Figs. 1 and 2. The socketed plate *d'* is arranged to co-operate with the latch *e* in locking or holding
90 the door when the latter is partially opened to bring its ventilating-section into position to coincide with the front portion of the doorway, as shown in Figs. 3 and 4. When the door is locked by the engagement of the latch
95 *e* with the socketed plate *d'*, the forward end of the ventilating-section of the door covers the forward end of the doorway, so that entrance to the interior of the car cannot be effected. The locking devices may be of any
100 suitable construction, and as means for locking or securing the rear edge of a sliding door to the side or body of a freight-car are

already well known I do not deem it necessary to here fully describe the locking devices in detail.

It will be observed that the described improvements involve no change in the construction of the car other than the increased length of the door involved by the addition of the ventilating-section to its forward end and the separation of the stop *c* from the forward end of the doorway and the provision of another fastening device on the side of the car to co-operate with the fastening member on the door in holding the door in its ventilating position.

The car is here shown as provided with two ears or brackets *f f'* to prevent the lower edge of the door swinging outwardly from the side of the car, and the forward ear *f* is here shown as provided with a recess or notch *g*, which is arranged to receive a swinging dog or catch *h*, pivoted to the ventilating-section of the door when the door is in its ventilating position, as shown in Fig. 3.

I claim—

The combination of a car having a side doorway, a door-stop separated from the front end of the doorway by a space of considerable

width, and two fixed fastening members located at different distances from the rear end of the doorway, a sliding door composed of a solid section formed to cover the doorway and a ventilating-section of substantially the width of the space between the said stop and the front end of the doorway, whereby when the door is closed against said stop the doorway is covered by the solid section, and a movable fastening member on the door at the rear end thereof adapted to co-operate with either of said fixed members, the engagement of said movable member with one of said fixed members locking the door when the latter is fully closed, while the engagement of the movable member with the other fixed member locks the door when it is partly open, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 24th day of September, A. D. 1890.

OLIVER P. HIX.

Witnesses:

WILLIS C. MERRILL,
HOMER ALBERS.