

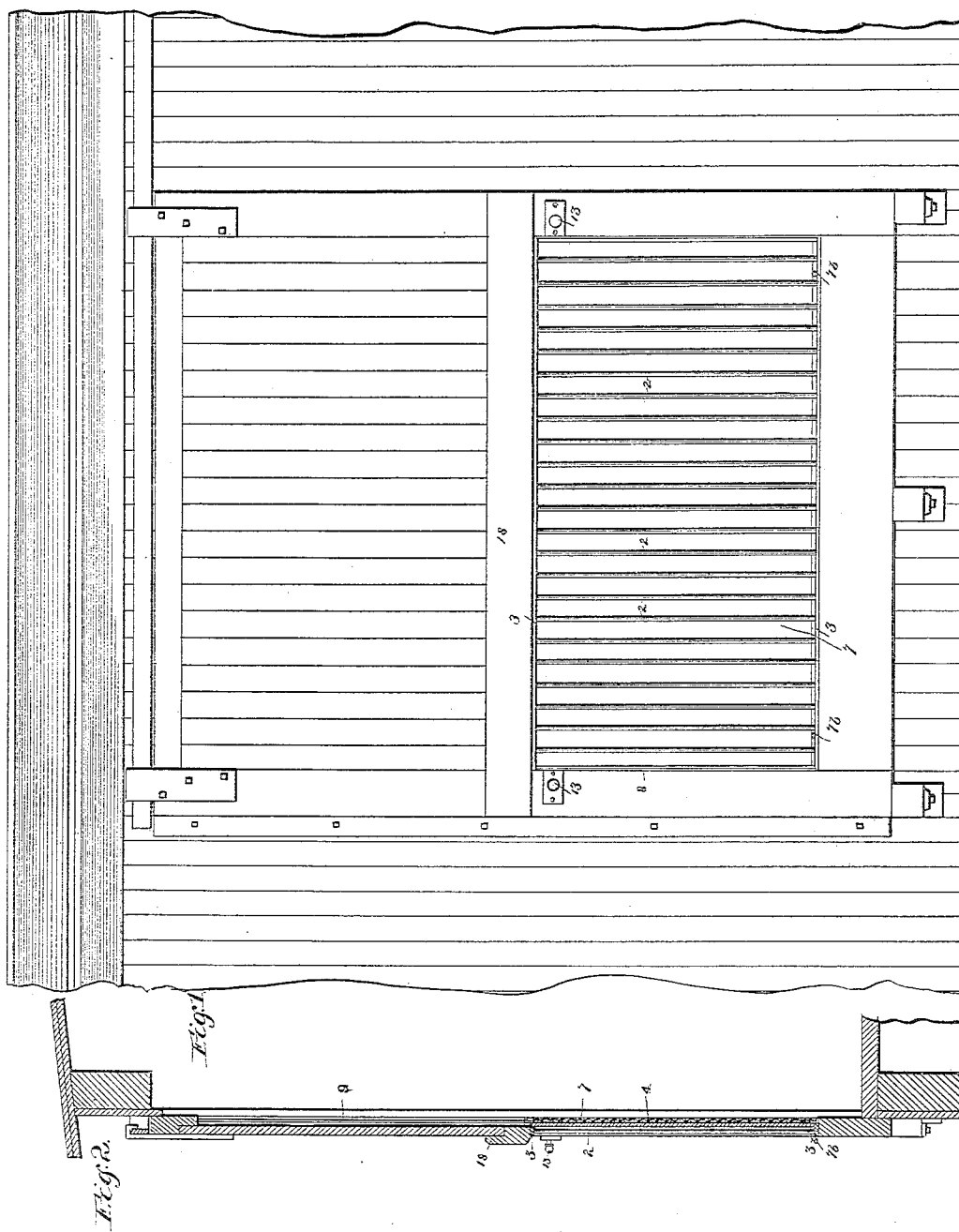
(No Model.)

2 Sheets—Sheet 1.

J. L. STAGG.
CAR DOOR.

No. 463,204.

Patented Nov. 17, 1891.



Witnesses

W. M. Rhein.
Chas. Chas. Mett.

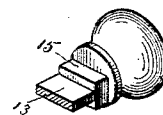
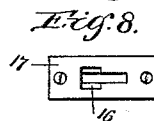
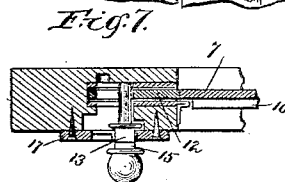
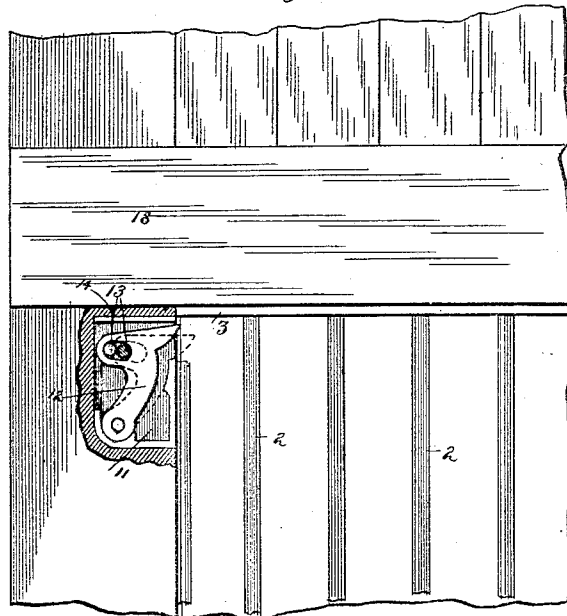
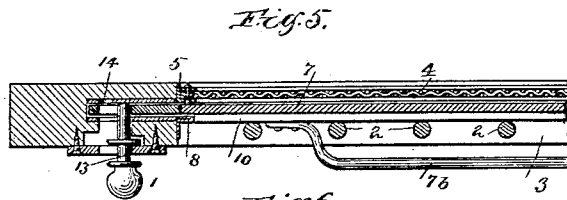
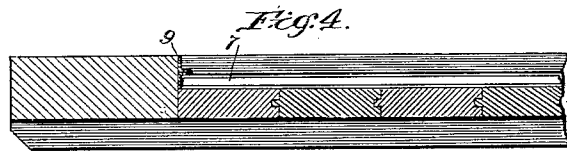
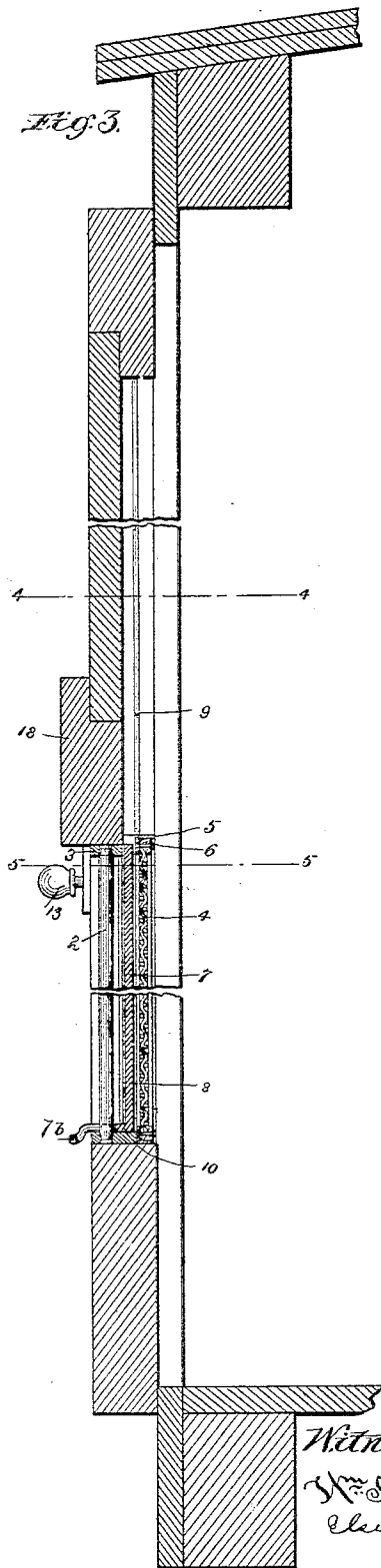
Inventor:
John L. Stagg
By Raymond & Veeder

Attys.

J. L. STAGG.
CAR DOOR.

No. 463,204.

Patented Nov. 17, 1891.



Witnesses,
Wm M. Rheems.
Claire Oremitt.

Inventor.
John C. Stagg
By Raymond & Weeder

Atty's.

UNITED STATES PATENT OFFICE.

JOHN L. STAGG, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO
C. W. FENN.

CAR-DOOR.

SPECIFICATION forming part of Letters Patent No. 463,204, dated November 17, 1891.

Application filed March 12, 1891. Serial No. 384,794. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. STAGG, residing in the city of Chicago, county of Cook, and State of Illinois, and a citizen of the United States, have invented a new and useful Improvement in Car-Doors, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a view of the outside of a car-door embodying my invention, a portion of the car-side being also shown. Fig. 2 is a vertical cross-section of the same. Fig. 3 is a section like Fig. 2, drawn to a larger scale in order to show the constructional details. Fig. 4 is a horizontal section of a portion of the door, taken on line 4 4 of Fig. 3. Fig. 5 is a like horizontal section on line 5 5 of Fig. 3. Fig. 6 is a view from the outside, on an enlarged scale, of a portion of the door, a part being broken away to show the latch which serves to sustain the sliding screen or panel of the door when raised. Figs. 7, 8, and 9 illustrate details described at length hereinafter.

My invention relates to doors for cars used in the transportation of various kinds of freight, for some of which it is desirable to have a tight weather-proof door and for others a door which permits circulation of air in order to ventilate the car. In cars adapted for such uses it is customary to provide two doors, either one of which can be brought over the door-opening, as may be desired. This necessitates an additional length of track to accommodate the two doors and a double set of hangers and other equipments, which not only add to the cost of building the car, but add to the dead-weight carried.

The object of my improvement is to dispense with the additional door by making a door which will allow of ventilation or which may be made nearly air-tight at will.

My invention consists in the parts and combinations hereinafter described and claimed.

As seen in Figs. 1 and 2, the door consists, as to one part, of solid battens put together in the usual manner, while the other part is formed of a grating composed of rods 2 2, &c., the ends of which are set into flat bars of iron 3 3, attached to the lower end and middle rails of the door-frame, respectively. (*Vide*

also Fig. 3.) The grating occupies only a portion of the thickness of the door, and upon the inner side of the latter is secured a screen or net-work 4, of wire, which is held in a frame formed of angle-iron 5, one side of the angle-iron being attached to the rails and stiles of the door-frame and the other side forming a surface for the attachment of the edges of the netting by means of rivets 6. Between the angle-iron frame for the netting and the grating a space is left into which is fitted a movable panel 7, preferably of sheet-iron, so that the door may be kept within the usual limits of thickness. Said panel moves in ways which at the lower part of the door are formed by the angle-iron frame 5, which carries the netting on one side, and on the other side by angle-irons 8, attached to the door-stiles. (*Vide* Fig. 5.) Said ways on the upper portion of the door are formed by a strip of sheet metal 9, Fig. 4, struck up in the center to form a rib, as shown in said figure, the battens which form the upper part of the door serving as the outer guides for the movable panel.

The lower edge of the movable panel 7 is bent outward to form a flange 10, which serves as a foot upon which the panel rests when lowered, and also serves to stiffen it. For raising the panel 7 a handle 7^b, Fig. 5, is attached to its outer side, near the lower edge, so as to project outside the grating. When raised, the panel can thus be manipulated from the outside and the proper conditions of ventilation secured without disturbing the door-lock or seal. The movable panel is held up by stops or catches, (shown in detail in Figs. 5 to 9,) said catch consisting of a casing 11, (see Fig. 6,) set into a mortise in the stile of the door in which is pivoted a latch 12, which normally, under the influence of gravity, occupies the position shown in dotted lines in said figure. When the panel is pushed up, the catches naturally fall outward so as to project beneath the edges of the panel and sustain it. When it is desired to release the catches so as to lower the panel, the pin 13, which passes through a slot in the catch, is moved toward the outer edge of the door and inserted in a recess 14, provided in the casing. The catches are thus sustained in the position shown in full lines in Fig. 6 out of the

way of the movable panel. The pin 13 is not designed to hold the catch permanently out of action, but is only intended to act long enough to hold one catch out of action while the other is being released as the door is too wide for both catches to be operated by one person simultaneously. For this reason the pin 13 is not firmly attached to the latch, the slot in the latter affording sufficient play to allow the latch to be pushed back by the panel, even though the pin should not be in position to withdraw the latch. A modification of the pin is shown in Figs. 7 to 9. A square shoulder 15 is formed upon it just under the head, and a corresponding pocket 16 is made in the outer plate or escutcheon 17, which is attached to the outer face of the car-door, a better hold for the pin being thus afforded.

It is of course to be understood that while I have herein shown the upper half of the door as solid and the lower half as provided with a grating the relative positions of these parts might be reversed, or the door might be divided vertically instead of horizontally, so that one vertical half should be grated and the other half solid without departing from my invention.

That which I claim as new, and desire to secure by Letters Patent, is—

1. A car-door having an opening for ventilation wherein is a grating secured at the outer side of the door-opening, a screen secured at the inner side of the door-opening, and a movable panel sliding in ways between said grating and screen, having a handle attached to its outer side so as to project beyond the grating and having its foot bent

outward to form a flange or stop, substantially as described.

2. A car-door having an opening for ventilation wherein is a grating secured at the outer side of the door, a screen secured at the inner side of the door, and a movable panel sliding in ways between said grating and screen, and a handle secured to said movable panel and projecting outside the grating, substantially as described.

3. A car-door having an opening for ventilation wherein is a grating composed of rods inserted in flat bars secured to the frame of the door surrounding the opening, a screen attached to a frame of angle-iron, likewise secured in said opening, and a sliding panel adapted to close said opening, the ways for said sliding panel consisting in part of the frame of said screen, substantially as described.

4. A car-door having an opening for ventilation wherein is a grating composed of rods 2 2, inserted in flat bars 3 3, secured to the frame of the door surrounding the opening, a screen 4, attached to a frame of angle-iron 5, likewise secured in said opening, a sliding panel 7 between said screen and grating, adapted to close said opening, and a catch adapted to hold said panel when raised, consisting of a slotted latch 12, pivoted in the casing 11, so as to fall outward by gravity and operated by a pin 13, substantially as described.

JOHN L. STAGG.

Witnesses:

IRWIN VEEDER,
TODD MASON.