

DRAFTSMAN.

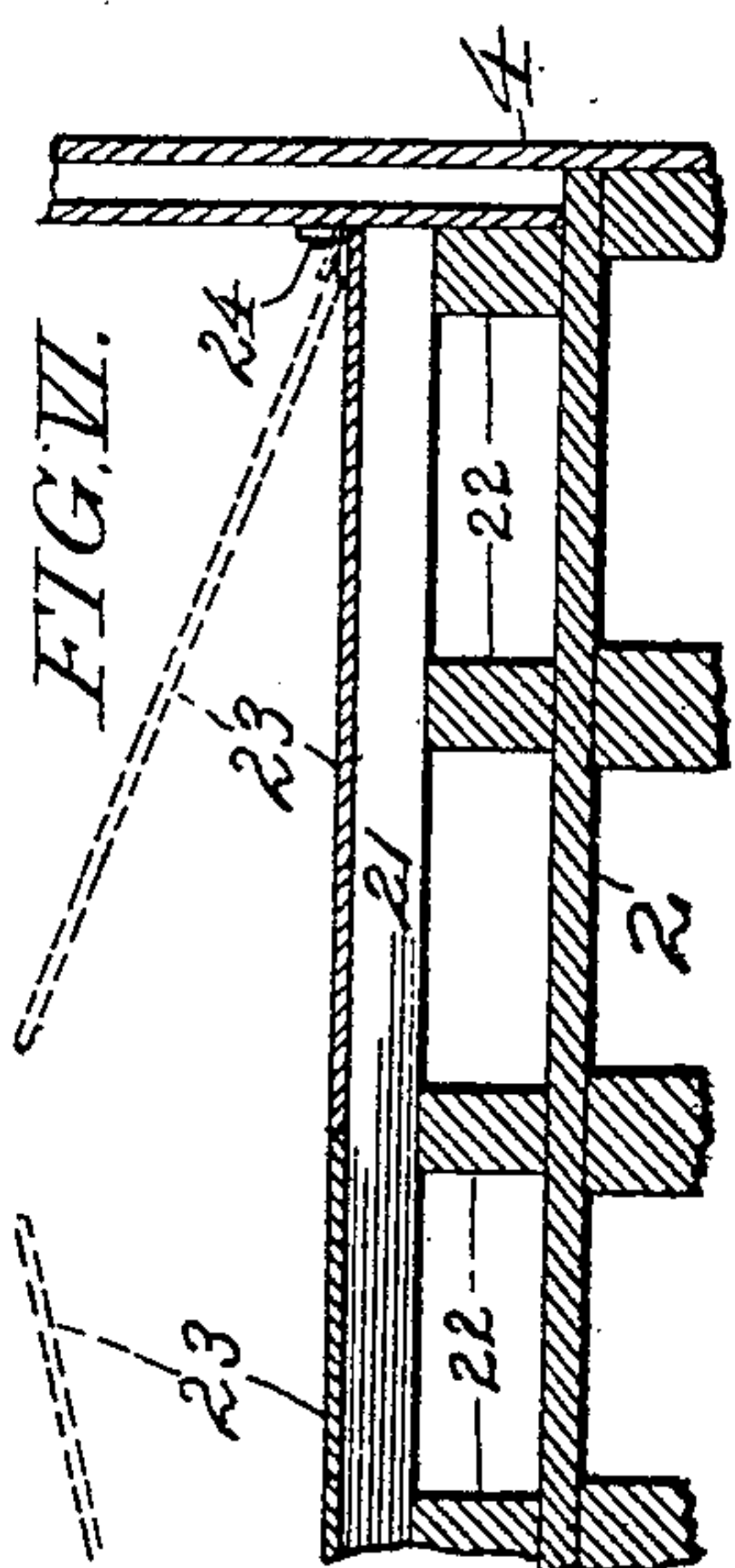
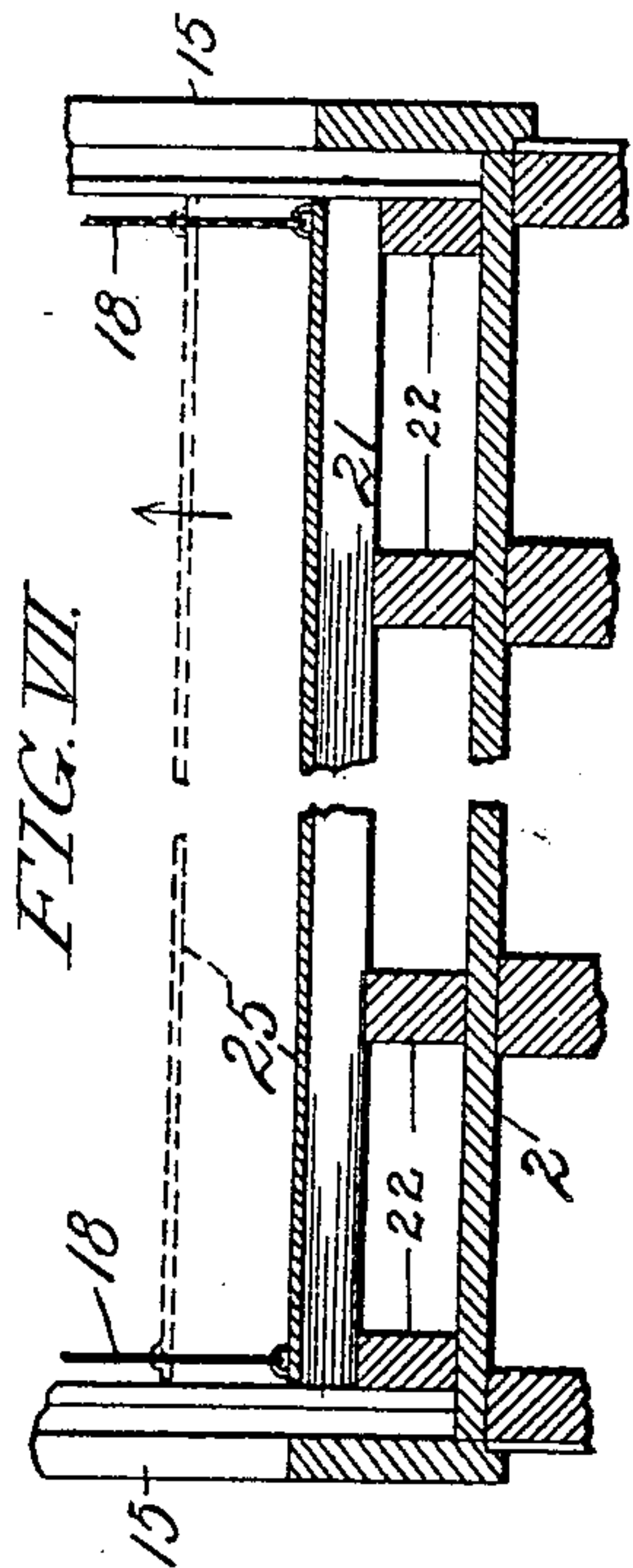
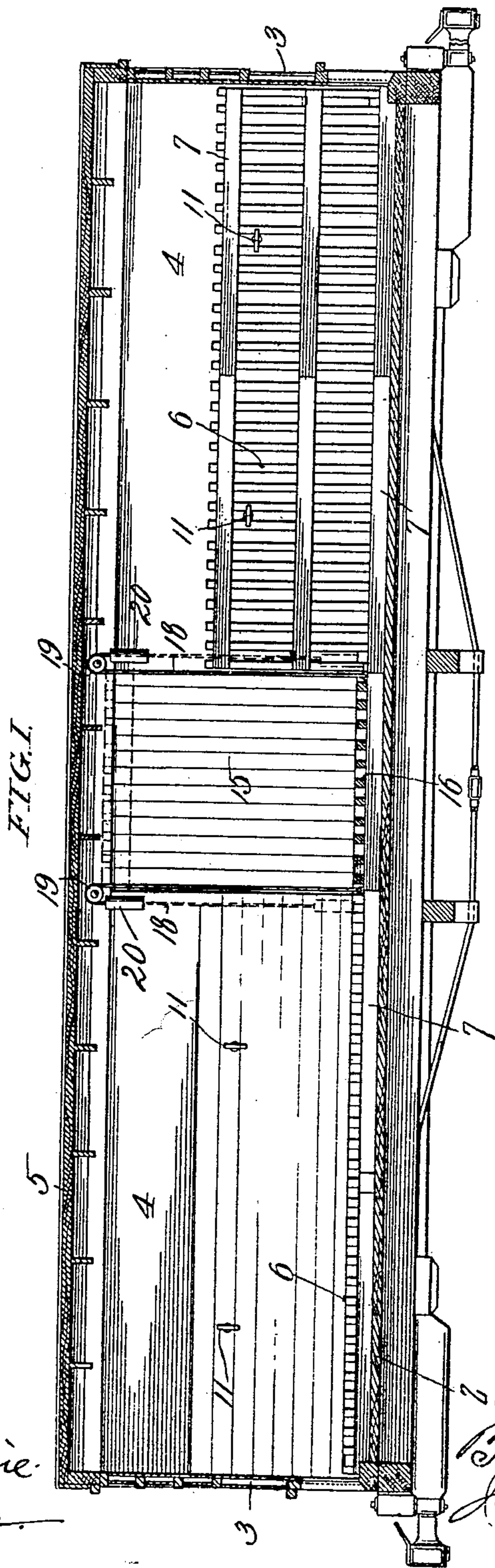
No. 865,349.

H. S. BAYER.
RAILROAD CAR.

PATENTED SEPT. 10, 1907.

APPLICATION FILED NOV. 13, 1906.

2 SHEETS—SHEET 1.



Inventor:

Witnesses

W. B. Burdine
J. H. Bowyer

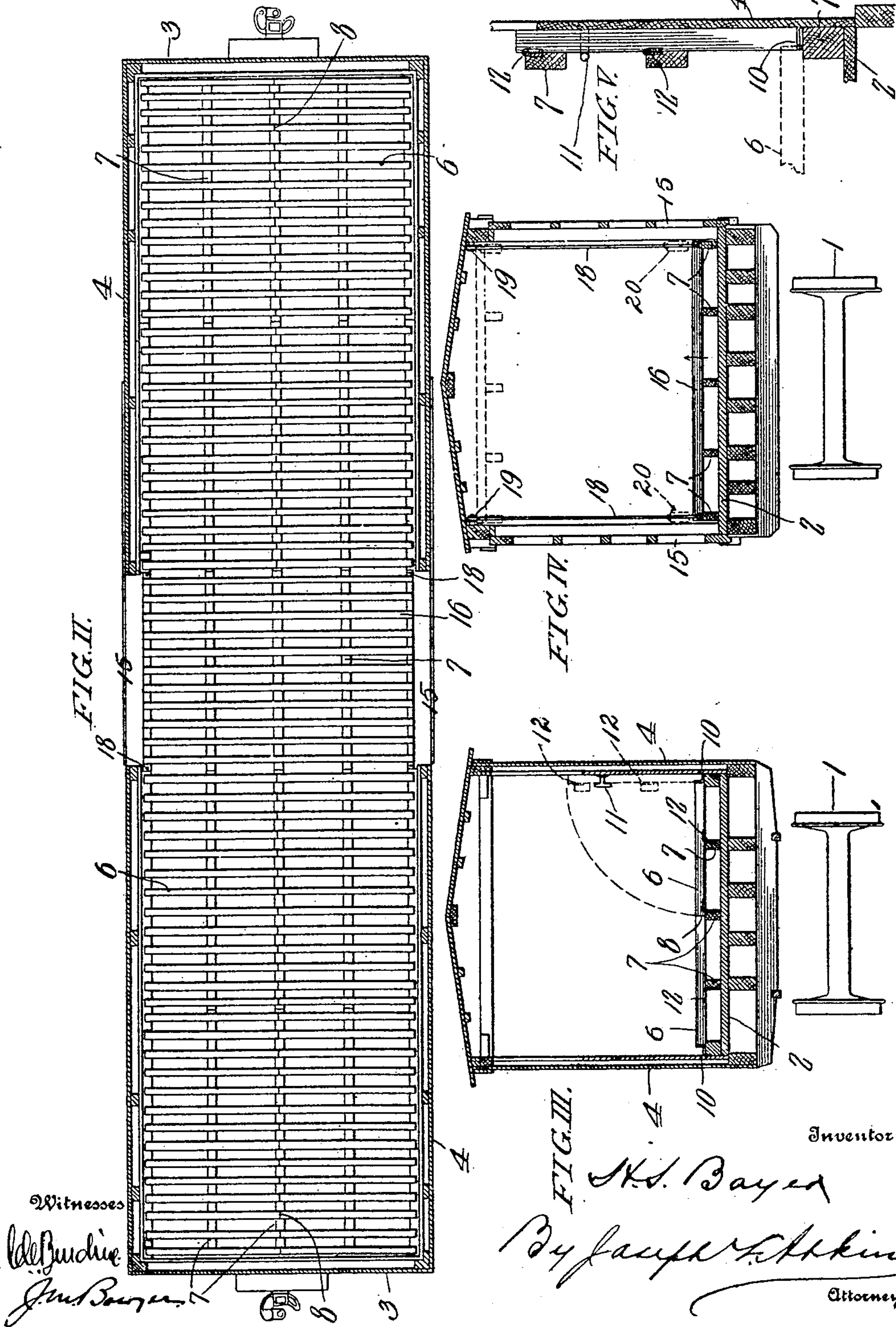
H. S. Bayer
By Joseph H. H. H.
Attorney

No. 865,349.

H. S. BAYER.
RAILROAD CAR.
APPLICATION FILED NOV. 13, 1906.

PATENTED SEPT. 10, 1907.

2 SHEETS—SHEET 2.



UNITED STATES PATENT OFFICE.

HENRY SOMERSET BAYER, OF JACKSONVILLE, FLORIDA, ASSIGNOR TO PATENT VENTILATED CAR COMPANY, OF CHARLESTON, SOUTH CAROLINA, A CORPORATION OF SOUTH CAROLINA.

RAILROAD-CAR.

No. 865,349.

Specification of Letters Patent.

Patented Sept. 10, 1907.

Application filed November 13, 1906. Serial No. 343,278.

To all whom it may concern:

Be it known that I, HENRY SOMERSET BAYER, of Jacksonville, in the county of Duval, State of Florida, have invented certain new and useful Improvements in Railroad-Cars, of which the following is a specification.

The object of my invention is to produce improvements in ventilated railroad freight cars, such, for example, as of the type shown in my U. S. Letters Patent No. 792,190, dated June 13, 1905, whereby provision is made for rendering the car available for the carriage of ordinary freight at such time as it is not in use for the transportation of perishable goods requiring ventilation.

Ventilated cars generally employ a floor or false bottom of open-work construction, through which the air may circulate. The presence of this floor is objectionable when the car is used as an ordinary freight car. The occasion to use a ventilated car as an ordinary freight car is usually present on return trips. If, for instance, it be sent out loaded with fruit or vegetables, to preserve which ventilation is necessary, it comes back loaded with other merchandise, which does not require ventilation and in the transportation of which the presence of the ventilated floor is objectionable. Provision to meet this has been made in the art by making the ventilating floor of removable sections. A serious objection to this provision is that the sections are apt to be lost so that when the car is again needed as a ventilated car, it is lacking in some of its parts.

My present invention is to provide means for keeping the parts assembled and available for use in a ventilated car, but in such manner as to permit the substitution for service of an imperforate floor for the ventilating floor, and vice versa, as required by occasion.

In the accompanying drawings, which constitute a part of this application, Figure I is a longitudinal, vertical section of a freight car, embodying my invention, showing five sections of a ventilating floor, one at each of its respective ends, and one in the middle. The two sections next to the lower end of the sheet are shown as in use. The two sections at the opposite end are shown as secured in the raised position. The intermediate section is illustrated as being of a modified type, to wit, one which may be bodily raised from the bottom to the top of the car and depressed as required. This section is shown in Fig. I in position for use in full lines, and in the raised position in dotted lines. Fig. II is a transverse section, taken above the floor, of the subject matter of Fig. I, but with all of the floor sections in position for service. Fig. III is a transverse section of a car, the roof of the car being in position, and a pair of truck wheels, illustrated diagrammatically with reference to the car body. In this figure, the car is shown as

equipped with hinged ventilating floor sections, two opposite sections being shown in full lines in position for service, and one being shown in dotted lines as secured in the raised position out of service. Fig. IV is a view similar to Fig. III, showing a floor section which is adapted to be raised and depressed bodily from the bottom to the top of the car. Fig. V illustrates a portion of the subject matter of Fig. III on an enlarged scale, showing the raised and secured floor section in full lines. Fig. VI is a view similar to Fig. V, showing a modification of my invention in which the ventilated floor is permanently fixed to the car floor and the covering only of the ventilating floor is movable as a floor section, substantially in the same manner in which the floor section shown in Fig. V is movable. Fig. VII illustrates the modification shown in Fig. VI movable from top to bottom of the car in the same manner and by the same means as the floor section shown in Fig. IV is movable.

Referring to the numerals on the drawings, 1 indicates the trucks, 2 the main floor which is of imperforate construction, 3 the ends, 4 the sides, and 5 the roof, which constitute a box-car of any preferred type, construction, and dimensions. It is provided with a ventilating floor 6, which may be made of metal or wood, or partly of metal and partly of wood, the members being so disposed as to provide for ventilation between them, and supported at intervals above the floor 2 as by stringers, or like supports, 7, so that there is a ventilating space between the main floor and the ventilating floor when the ventilating floor is in service.

The floor 6 may be divided into as many sections as may be desirable for convenience in handling it. It may be divided longitudinally, preferably midway of the car, as indicated at 8, into lateral divisions extending lengthwise of the car, substantially from end to end thereof. Each lateral section, or sub-division of each lateral section, may be secured to the side-wall 4 next adjacent to it, as by hinges 10, which permit of the section or sub-section, to which the hinges are attached, being raised into juxtaposition to the side-wall 4, in which position it may be firmly secured, as by clamps 11. The intermediate stringers 7 are preferably hinged, as indicated at 12, to the floor sections or sub-sections so that when such sections or sub-sections are raised to the vertical position, the stringers 7 drop into position snugly against the front or exposed face of the sections. When the sections are lowered, they drop into place again to act as supports for the ventilated floor.

In the middle part preferably, the car is provided, as usual, with doors 15. Opposite these doors, the ventilating floor is preferably constructed in a section 16, which may be conveniently raised to the top of the car

or depressed to the floor 2. To this end, it is preferably hung upon flexible supports 18, passing over pulleys 19; one at each corner of the section, or, as illustrated, on opposite sides of the door 15, and balanced by weights 20 secured to the ends of the flexible supports. Whenever the floor section 16 is required to be used, it is drawn, against the tension of the weights 20, and set into position upon the floor 2, where it will remain, by reason of its adjustment, until removed.

10 It is obvious that the entire car may be fitted with ventilating sections corresponding with the section 16, or that it may be completely fitted with the hinged sections previously described. I show both forms in order to indicate clearly my intention to employ either the one or the other as preferred, but show the two forms in combination, because I now regard that as the preferred form of embodiment of my invention.

The hinges 10 are illustrated as ordinary butt-hinges, but they, as well as the flexible supports 18, are representative of any means by which the ventilating floor sections or sub-sections may be movably, but permanently, secured to the car for accomplishing the end in view, as specified.

In Figs. I to V inclusive, I illustrate the ventilating floor as composed of movable sections; but my invention contemplates the employment of a permanent ventilating floor in connection with movable floor sections, constituting temporary coverings for the ventilating floor when the car is in service for the transportation of non-perishable merchandise. This modification of my invention is illustrated in Figs. VI and VII, wherein 21 indicates a permanent or fixed floor corresponding in function to the floor 6 previously specified. It is supported as by longitudinal stringers 22 running from end to end of the car, so that there is a ventilating space between the main floor and the ventilating floor. The floor 21 is covered over by a thin skin or covering which may be made of steel plates divided into floor sections corresponding, substantially, to the sections of the ventilating floor already specified, with the exception that they are imperforate instead of open-work construction. Otherwise the two kinds of floor sections are identical. One of the floor sections under consideration is shown in Fig. VI, and another in Fig.

VII. The one in Fig. VI, indicated by the numeral 45 23, is shown as hinged to the side-wall 4 by hinges 24, identical with the hinges 10 previously specified. The other, shown in Fig. VII and there indicated by the numeral 25, corresponds to the floor section 16 already specified, and suspensible like it, or in place of it, from flexible members 18 passing over pulleys 19 and terminating in balance weights 30.

What I claim is:

1. In a box car, the combination with a ventilating floor, of an imperforate floor movably secured to the car and adapted, when in service, to cover said ventilating floor. 55

2. In a box car, the combination with a main floor, of a ventilating floor adjacent thereto, an imperforate floor movably secured to the car, and means for lowering and raising said imperforate floor into and out of service. 60

3. In a box car, the combination with a main floor, of a ventilating floor adjacent to said main floor, and defining therewith a ventilating space, an imperforate floor movably secured to the car and adapted, when in service, to cover said ventilating floor, and means for lowering and raising said imperforate floor into and out of service. 65

4. The combination with a box-car, of separate sections of a floor, means for movably uniting said sections, respectively, to the car, means for securing said sections in the raised and lowered positions, respectively, and hinged supports upon the respective sections for supporting them above the car floor when secured above the same. 70

5. The combination with a box-car, of a floor consisting of separable, movable sections permanently secured, respectively, to the car, means for lowering and raising the sections into and out of service, and means upon the sections for supporting the same above and adjacent to the main floor when in service. 75

6. The combination with a box-car provided with a door, of a floor section permanently secured to the car and adapted to be moved into an upright position, and a floor section adjacent to said door and adapted to be raised bodily out of service. 80

7. The combination with a box-car provided with a door, of an imperforate floor section permanently secured to the car and adapted to be moved into an upright position, and an imperforate floor section adjacent to said door and adapted to be raised bodily out of service. 85

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

HENRY SOMERSET BAYER.

Witnesses:

CHAS. W. KINNE,
WALTER OVERSTREET.