

(No Model.)

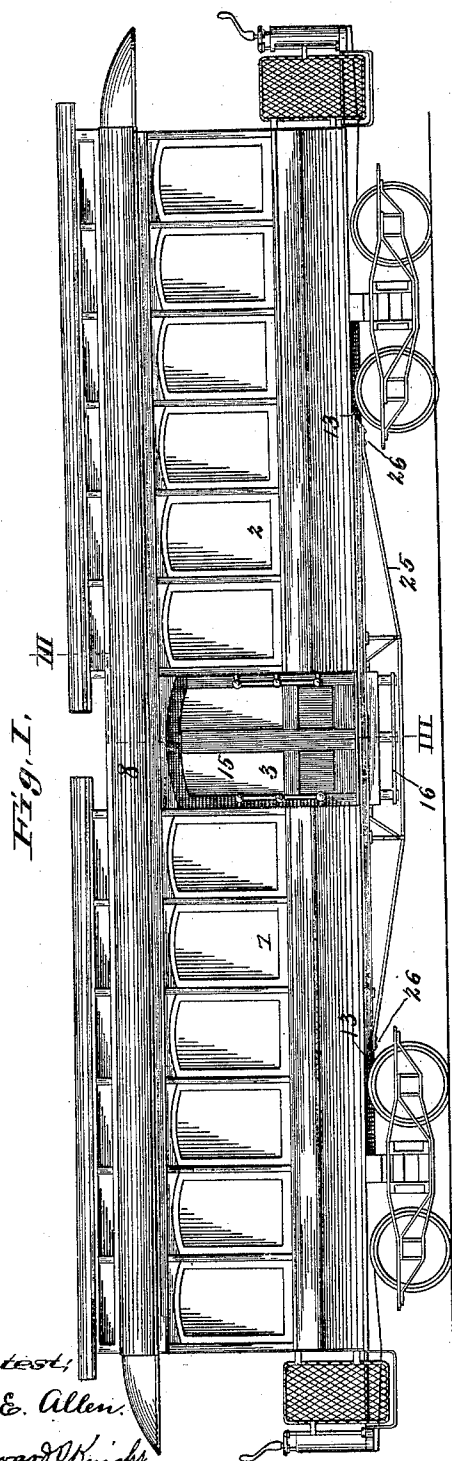
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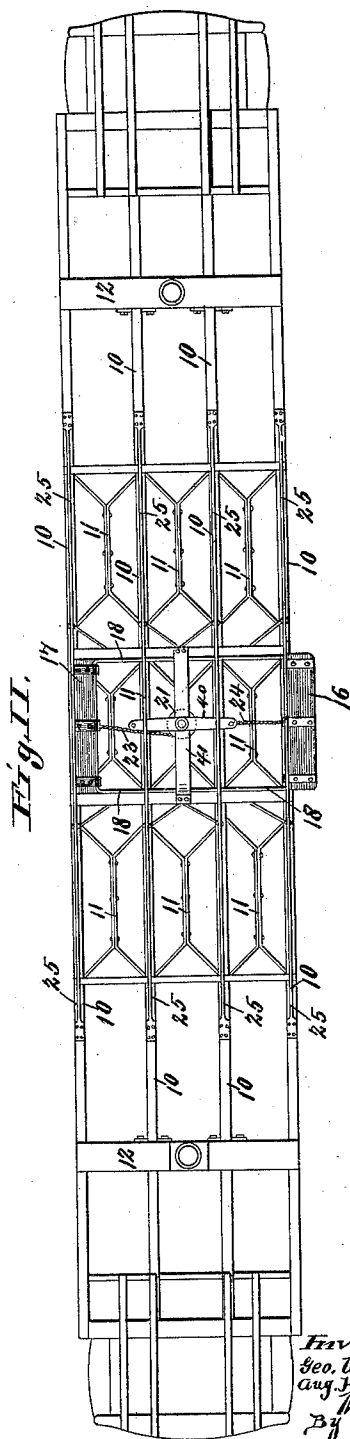
STREET CAR.

No. 467,392.

Patented Jan. 19, 1892.



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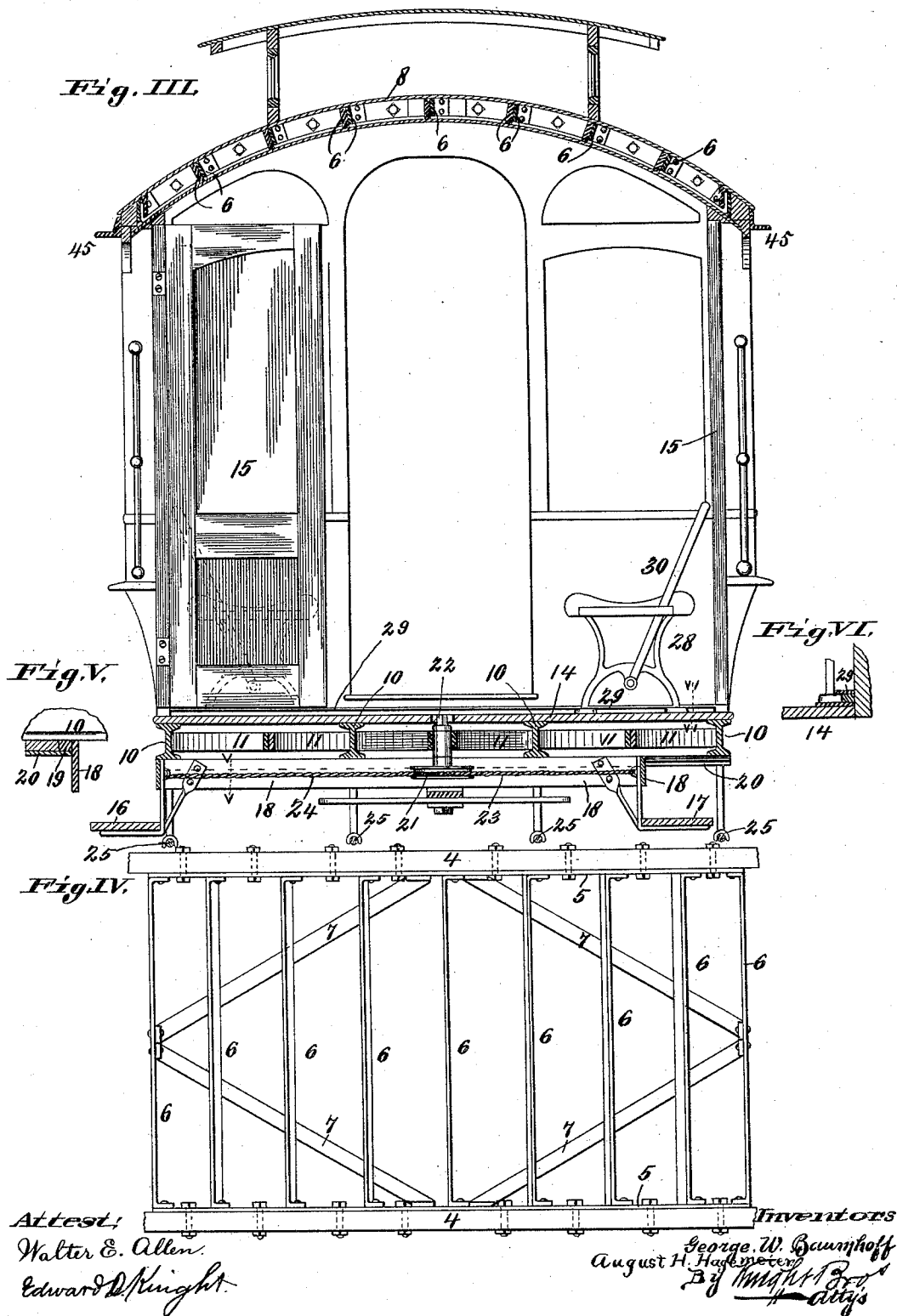
2 Sheets—Sheet 2

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UNITED STATES PATENT OFFICE.

GEORGE W. BAUMHOFF AND AUGUST H. HAGEMEI^{ER}, OF ST. LOUIS, MISSOURI, ASSIGNORS OF ONE-THIRD TO GEORGE D. CAPEN, OF SAME PLACE.

STREET-CAR.

SPECIFICATION forming part of Letters Patent No. 467,392, dated January 19, 1892.

Application filed September 7, 1891. Serial No. 405,030. (No model.)

To all whom it may concern:

Be it known that we, GEORGE W. BAUMHOFF and AUGUST H. HAGEMEI^{ER}, both of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Street-Cars, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

Our invention relates to a street-car with a central vestibule; and the invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is a side elevation illustrative of our invention. Fig. II is a bottom view with the trucks removed. Fig. III is an enlarged vertical transverse section taken on line III III, Fig. I. Fig. IV is an enlarged detail view of the top frame of the vestibule. Fig. V is an enlarged detail vertical section taken on line V V, Fig. III. Fig. VI is a similar view taken on line VI VI, Fig. III.

The prime object of our invention is to utilize two common street-cars to make one large car, and in carrying out this idea we take two street-cars such as are in common use and cut off the projecting roof and platform of one end of each car and present these two ends of the two cars together and connect them by a vestibule, say, four feet wide, more or less, thus forming one continuous car well adapted for use, particularly on electric railways, the single car having the capacity of the two, plus the capacity of the vestibule.

Referring to the drawings, 1 2 represent the two cars joined by a vestibule 3, forming one continuous car. The top or roof of the vestibule is composed of a frame-work (see Fig. IV) bolted or secured to the end timbers 4 of the two cars, these timbers forming part of the roof of the cars as originally made. The frame consists of two side pieces 5, connected by strips or bars 6 and braces 7, the side pieces being bolted to the timbers 4, as shown. This frame-work is covered by a roof 8 and lined by a ceiling 9 (see Fig. III) and acts to permanently hold the two cars or the two members of the single car together at top. The two cars or the two members of the single car are connected at bottom by means of beams 10, I-beams be-

ing preferably used, and which are bolted or otherwise secured to the bottom of the car and united by means of braces 11, joined to their webs, as shown in Figs. II and III. We have shown four of these beams, and we prefer to extend the two central ones from the bolster-plate 12 of one member of the car to the bolster-plate 12 of the other member, while the two outside beams terminate at 13, Fig. I, so as not to interfere with the turning of the trucks by the wheels coming against them.

14 represents the floor of the vestibule resting upon the beams 10. The sides of the vestibule are provided with doors 15, which may, if desired, be removed when the car is used for summer traffic. There is thus an entrance into the vestibule from either side of the car, and to provide for the getting on and off on either side of the car while the other side is closed to passengers we provide sliding steps, which may be brought into using position on either side of the car.

16 represents the step or steps on one side of the car and 17 the step or steps on the other side of the car. They are secured to a rectangular frame 18, supported beneath the beams 10 by means of strips or projections 19 on the sides of the frame 18, which slide in ways 20, secured to the I-beams. (See Figs. III and V.) By shifting the frame 18 to one side of the car the step 16 is exposed or brought into using position, as shown in Fig. III, while the step 17 is moved under the car out of using position. By moving the frame 18 in the other direction the step 17 is exposed or brought into using position, while the step 16 is moved beneath the car out of using position, and thus either side of the car is made accessible for the getting on and off of passengers at will, while the other side is closed from use.

As a means for moving the frame 18, we have shown a pulley 21 mounted on a short vertical shaft 22, journaled in the center of the car beneath an opening in the floor of the vestibule, through which a crank may be inserted onto the non-circular upper end of the shaft for turning the pulley. (See Fig. III.) One end of the frame 18 is connected to the pulley 21 by a cable or chain 23 and

the other end of the frame is connected to the pulley by a cable or chain 24, so that by turning the pulley in the proper direction the frame will be shifted to move the steps, as explained.

25 represents truss-rods connecting the two members of the car and assisting the beams 10 in firmly holding the two members together, the ends of the rods being preferably connected to the beams 10 at the ends of the latter, as shown at 26, Fig. I.

We prefer to provide the vestibule with a seat 28, extending lengthwise of the car, which, in addition to increasing the seating capacity of the car, also guards against the possibility of passengers trying to enter or leave the car, except on the proper side or the side having the step exposed. It is necessary that this seat be arranged so that it can be moved to either side of the vestibule, and this we accomplish by securing ways or strips 29 along the side of the vestibule, which have grooves receiving the flanges or feet of the seat. (See Figs. III and VI.) It will thus be seen that the seat can be slid along from one end of the vestibule to the other end, and this seat may be provided with a reversible back-rest 30.

40 represents a lever pivoted beneath the vestibule to a bar and to which the brake mechanism may be connected.

45 represents angle-irons extending lengthwise of the car-body at the roof (see Fig. III) and which assist in holding the two members of the car together.

By our invention two street-cars, such as are in ordinary daily use, may be combined into a single large car at comparatively small expense and a large car of a very desirable construction and form be produced.

When our improved form of car is built up new, the I-beams 10 may be dispensed with and the entire framing of sills made of continuous timbers properly trussed.

We claim as our invention—

1. A car formed of two street-cars secured together end to end and provided with a central vestibule, substantially as and for the purpose herein set forth.

2. A car formed of two cars secured together end to end and having the adjacent ends of the roof and platform removed and constructed with a vestibule connecting the two cars, substantially as set forth.

3. In combination with the two members of the car, a frame connecting the members

at top and a frame connecting the members at bottom, said frame connections forming a central vestibule open at each side of the car, substantially as set forth.

4. In combination with the two members of the car, a vestibule located between the members and open at each side of the car and hinged doors closing the openings to the vestibule, substantially as set forth.

5. In combination with the two members of a car, the vestibule located between the members and open at each side of the car and movable steps supported adjacent to the openings in the vestibule, substantially as and for the purpose set forth.

6. In combination with the two members of a car, the vestibule located between the members and open at each side of the car and steps secured to a sliding frame, so as to be simultaneously moved into and out of position on the opposite sides of the car, substantially as set forth.

7. In combination with the two members of a car, a vestibule located between the members and open at each side of the car, a sliding frame, steps secured to the frame, and a pulley connected to the frame and by which it is moved to shift the steps, substantially as and for the purpose set forth.

8. In combination with the two members of a car, a vestibule located between the members and open at each side of the car and a movable seat located in the vestibule, substantially as and for the purpose set forth.

9. In combination with the two members of a car, a vestibule located between the members and open at each side of the car, a sliding seat located within the vestibule and guides for holding the seat in position, substantially as set forth.

10. In combination with the two members of a car, the frame connecting the two members at top, and the beams 10, having braces 11 and the truss-rods 25 for securing the two members of the car together at bottom, substantially as and for the purpose set forth.

11. In combination with the two members of the car, a vestibule located between the two members, and the angle plates or bars 45, extending lengthwise of the car-body at the roof, for the purpose herein set forth.

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In presence of—

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E. S. KNIGHT.