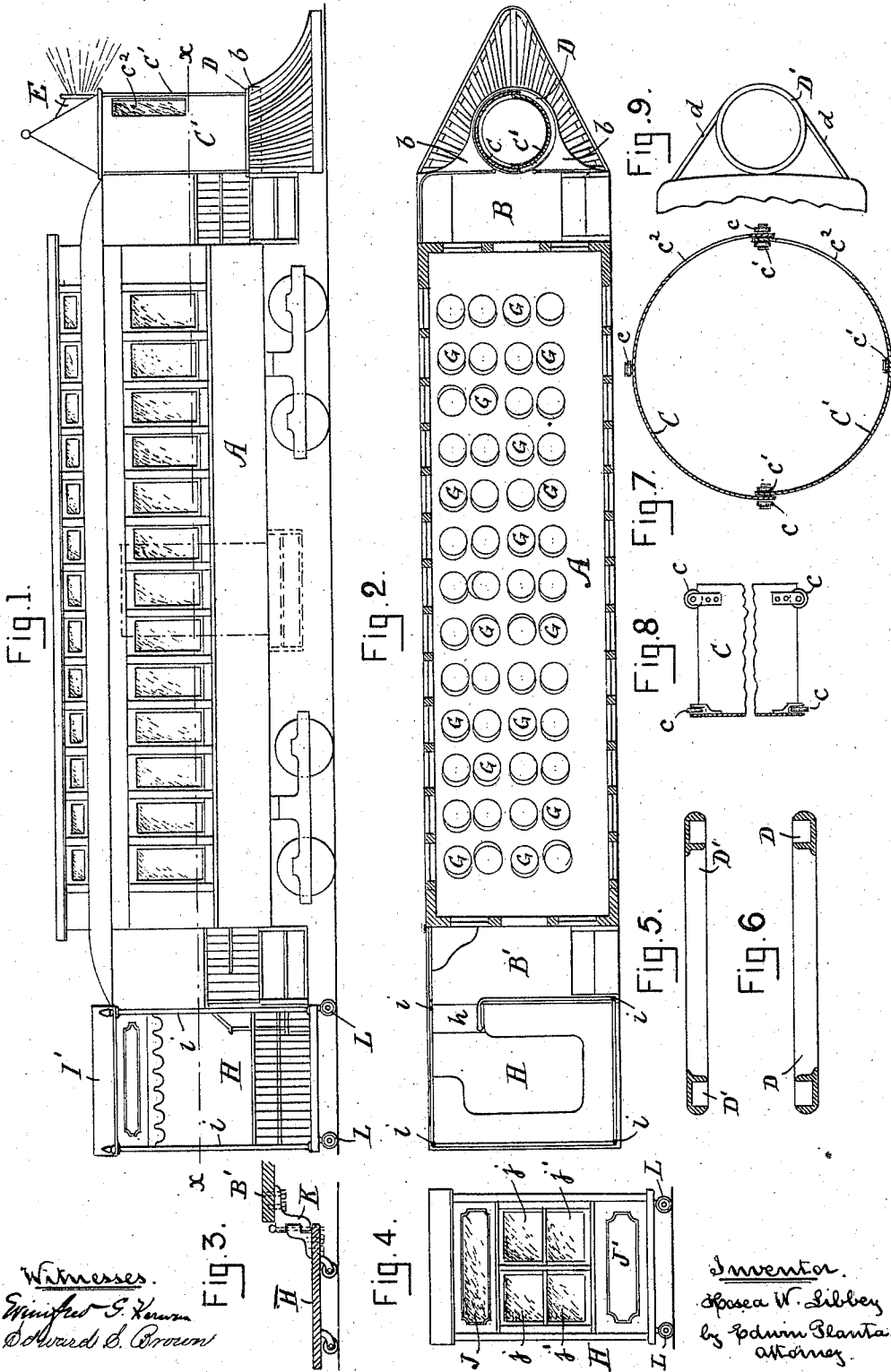


(No Model.)

H. W. LIBBEY.
STREET CAR.

No. 575,485.

Patented Jan. 19, 1897.



Witnesses.
Winifred S. Krum
Edward C. Brown

Inventor.
Hosea W. Libbey
by Edwin Blanta.
Attorney.

UNITED STATES PATENT OFFICE.

HOSEA W. LIBBEY, OF BOSTON, MASSACHUSETTS.

STREET-CAR.

SPECIFICATION forming part of Letters Patent No. 575,485, dated January 19, 1897.

Application filed December 10, 1894. Serial No. 531,431. (No model.)

To all whom it may concern:

Be it known that I, HOSEA W. LIBBEY, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Street-Cars, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to improvements in electric cars; and the invention consists in a compartment at the front end of the car for the motorman, in an annex for smokers at the rear end, and in certain details of construction, as hereinafter fully described, and pointed out in the claims.

Referring to the accompanying drawings, Figure 1 represents a side view of a car embodying my invention. Fig. 2 is a horizontal section taken on the line *x x* of Fig. 1. Fig. 3 is a view of the connection between the annex and the rear platform of the car. Fig. 4 is a side view of the annex, showing it inclosed. Fig. 5 is a sectional view of the top track for motorman's compartment. Fig. 6 is a similar view of the lower track. Fig. 7 is a horizontal section of the walls of the motorman's compartment. Fig. 8 is a vertical cross-section of the upper and lower ends of one of the sides of the motorman's compartment. Fig. 9 is a view showing the manner of supporting the upper track from the roof.

A represents the body of the car; B, the front platform, having an extension *b*, which supports the motorman's compartment. This compartment consists of two vertical semi-circular parts C C', preferably of metal, of such a size that the inner portion C' is small enough to just fit within the outer portion C. The upper and lower edges of each section are fitted with small wheels *c c'*, that travel in tracks or ways D D', the lower track D being secured to the platform extension *b* and the upper one, D', from the roof of the car, it being connected at its central rear portion directly to the roof and on each side by rods or bars *d*, secured at one end to the track D' and the other end to the roof, as shown in Fig. 9.

Each portion C C' of the compartment is fitted with a glass or window *c²*, (see Figs. 1

and 7,) through which the motorman has a full view of the road before him.

The portions C C' being free to be turned independently they can both be slid around, so as to have a space at the rear end of the compartment for the ingress and egress of the motorman, and when he is within the compartment the rear end can be closed, so that all communication with passengers is prevented, and when the two portions are in the positions shown the motorman is entirely protected from the weather, and in the summer-time the portions B B' can be slid around, so that the front of the compartment is open and the rear portion closed.

In the upper portion of the compartment is arranged a headlight E, which will show the condition of the track for a considerable distance beyond the car.

In the body of the car are secured several rows of rotating seats G. Each seat being independent can be occupied by one person only. Thus crowding is prevented, and the occupant can sit in any position he desires, so that should two persons occupying adjacent seats wish to converse they can turn their seats so that they face each other, no matter what the position of the other seats may be.

To the rear platform B' is attached an annex H, which is intended to be occupied by smokers. The floor of this annex is below the level of the platform B', and steps *h* are attached to the platform B' to give access to the annex. For summer use I prefer to have the annex covered by a roof I, supported by standards *i*, but for winter use I prefer to have an upper panel J and a lower panel J', the space between the two panels being fitted with sashes *j j'*, the upper ones, *j*, being free to be pushed up into the upper panel J and the lower sashes *j'* lowered into the lower panel J', so that the space between the two panels J J' will be open. This arrangement might be used for both winter and summer cars, but of course so much air could not circulate through the annex as if the sides were open, as shown in Fig. 1.

I prefer to attach the annex to the rear of the platform by a hinge-joint K, as shown in Fig. 3, and when the car is intended to run upon a practically straight track the annex

may be close to the rear platform B', but when the car has to run upon a track with sharp curves then a space would have to be left between the annex and the rear platform to allow the annex to adapt itself to the required curve, in which case the steps *h* would be provided with small rollers to work on the floor of the annex, so as to adapt itself according to the position of the annex in relation to the car. I prefer to cover the wheels L, carrying the annex, with rubber, as a substitute for springs.

If desired, a door might be formed in the side, as shown in dotted lines in Fig. 1.

I claim—

1. In combination with an electric car a compartment for the motorman consisting of two semicircular sections working in tracks or ways, the lower track being supported by the platform and the upper track by bars secured to the roof, one of said sections sliding inside the other as set forth.

2. In an electric car a circular extension on the platform upon which is constructed a

compartment for the motorman, consisting of a track or way secured thereon and a track, supported from the roof of the car by bars, above the lower track in combination with two semicircular pieces fitted with wheels at their upper and lower ends which wheels work in said tracks substantially as and for the purposes set forth.

3. In combination with an electric or street car, an annex the floor of which is below the level of the car-platform, steps hinged to the platform of the car the lower ends of which are fitted with rollers resting and free to work upon the floor of said annex, said steps forming a gangway between the car-platform and the annex substantially as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 29th day of March, A. D. 1894.

HOSEA W. LIBBEY.

Witnesses:

CHAS. STEERE,
EDWIN PLANTA.