## E. LONGSTRETH. VENTILATING STEAM STREET-CARS.

No. 195,716. Patented Oct. 2, 1877. Tio. 1. Fig.2. Witnesses R.C. Hright R. H. Sanford.

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Edwa Longstreth Inventor,

## UNITED STATES PATENT OFFICE.

EDWARD LONGSTRETH, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO BURNHAM, PARRY, WILLIAMS & CO., OF SAME PLACE.

## IMPROVEMENT IN VENTILATING STEAM STREET-CARS.

Specification forming part of Letters Patent No. 195,716, dated October 2, 1877; application filed September 3, 1877.

To all whom it may concern:

Be it known that I, EDWARD LONGSTRETH, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Steam Street-Cars, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

The object of my invention is to construct steam street-cars in a manner to prevent the escaping heat and odor of the boiler from being conveyed into the car, where it may become offensive and annoying to the passen-

By reference to the drawings, in which Figure 1 is a longitudinal section, and Fig. 2 a plan in section, it will be seen that the boiler A is placed in a suitable position in the engine-room B, between which room B and the passenger-room C, I construct two or more partitions or walls, D D, at proper distances apart to form one or more air-spaces, E E, in which there is a free circulation of pure air introduced from the outside of the car.

The air may be admitted through suitable

openings F F F, or through similar openings G G G, near the bottom at the sides. After the air enters these openings F F F or G G G it is expanded by the heat, and, rising through the space or spaces E E, passes out at or near the top of the car through suitable ventilators, or is conveyed to a passage, H, surrounding the chimney K, where it escapes from the car.

It will be evident that any suitably-shaped or number of openings that will admit or discharge a sufficient quantity of air to keep the spaces E E cool and odorless may be employed, or attachments of various devices may be used to give a proper amount of draft or vent.

I claim as my invention—

The partitions or walls D D, forming the air-spaces E E between the engine-room B and passenger-room C, substantially as described, and for the purposes set forth.

EDWD. LONGSTRETH.

Witnesses:

J. R. MASSEY,

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