A. A. YOUNG.

STREET-CAR.

No. 192,808. Patented July 3, 1877.

Fig. 5.

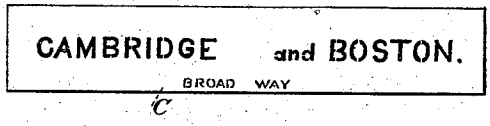


Fig. 4.

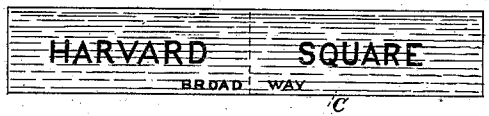


Fig. 1.

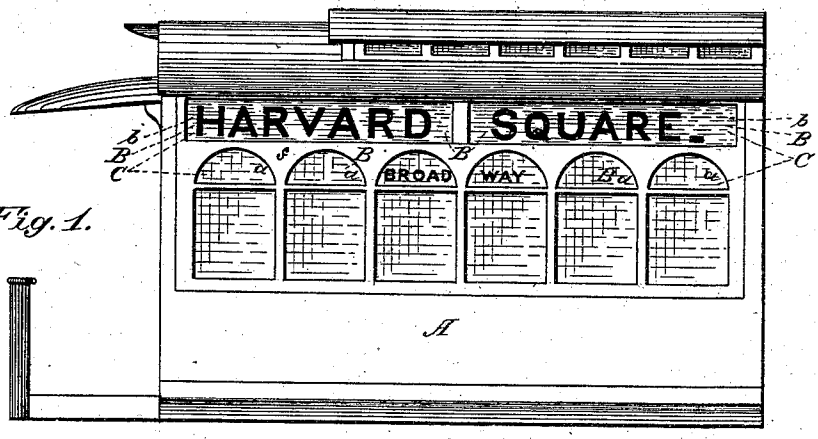


Fig. 2.

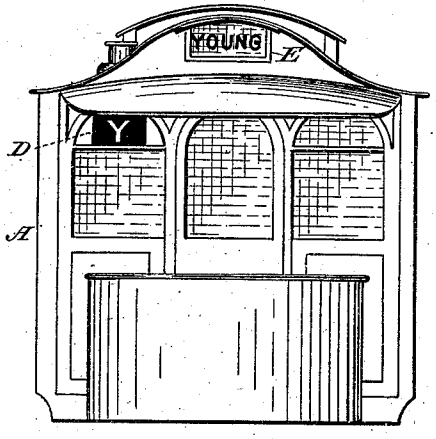
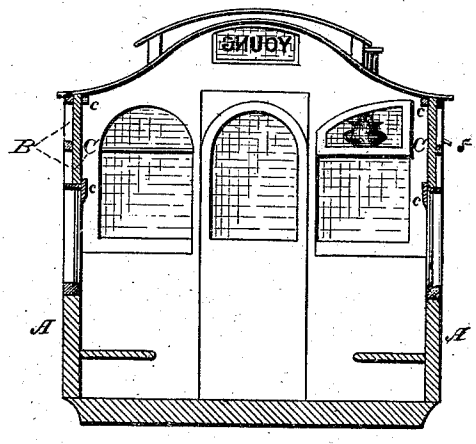


Fig. 3.



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UNITED STATES PATENT OFFICE.

ALBERT A. YOUNG, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN STREET-CARS.

Specification forming part of Letters Patent No. **192,808**, dated July 3, 1877; application filed May 8, 1877.

To all whom it may concern:

Be it known that I, ALBERT A. YOUNG, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Street-Cars; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification, in which—

Figure 1 represents a side elevation of the body of a car to which my improvement has been applied, and Fig. 2 a front elevation of the same. Fig. 3 represents a vertical transverse section of the same. Fig. 4 represents a side elevation of one style of my improved "destination" panels formed out of a transparent medium, as intended for use in cold weather; and Fig. 5, a similar view of another style, formed out of solid material, such as sheet metal or wood with the destination cut therein in the manner of a stencil.

My invention relates to a new and improved mode of exhibiting on cars, omnibuses, &c., their destination or their destination and route.

Formerly the destination of cars, omnibuses, &c., has been painted on the upper rails, or lower panels, or on both of the side walls. This answers a very excellent purpose during the day, but is not legible or readible while they are running in the dark.

Heretofore I have invented and patented an improved lantern top or dome for the purpose of showing the destination of the car; but this so increases the cost and difficulties of construction of the car that it is objectionable in that respect.

Beyond this its dome or top requires the use, for the purpose of illuminating it, of an extra light, which, for obvious reasons, is very objectionable.

I have also invented and patented a mode of doing the same thing from the canopy-roof that protects the platforms of the car; but this, while good, does not fully meet the requirements of the public, as such is only observable from the front or rear of the car.

To remedy these difficulties, and provide a perfect system of signaling without the use of additional lights, is the object of my invention; and it consists, first, in constructing the upper portion of the side and end walls of the car for the reception of what I term "destination" or "signal" panels, so constructed as to be capable of being illuminated by the lamps of the car as ordinarily arranged; second, in combining, with the walls of a car or other conveyance thus constructed, a system of panels in or on which signals or the detination of the car, and, if required, the special route, are cut or otherwise formed in such manner as to be visible during the day and yet capable of being illuminated and rendered visible at night; third, in combining, with the walls of a car or other conveyance, removable panels, by means of which an open stenciled signal or destination panel can, for the purposes of ventilation, be substituted in the summer time for the close glass destination-panels of winter, and vice versa; fourth, in combining, with the walls of a car or other conveyance, a system of stenciled panels in connection with a system of glass panels, either plain, colored, tinted, or ground, for the purpose of showing signals or the destination of the conveyance, or for other purpose; fifth, in combining, with a car having a stenciled or system of stenciled panels arranged in its walls, a removable transparent or translucent panel or panels—glass preferred—whereby the stenciled panel or panels may be closed in winter and opened in summer, for the purpose of increasing the ventilation of the car, and to aid in keeping it cool.

To enable those skilled in the art to make, construct, and use my invention, I will describe it in detail.

The side walls A of the car, at their upper edge, I construct differently from those in common use, in this, that I construct them so as to provide space for the reception of a panel or panels, and this I propose to do in any suitable way known to those skilled in the art.

In the drawing, this space B is represented in a vertical direction as forming, by the outside framing *f*, two systems of spaces, but which on the inside forms but one space. One

of these systems, *a*, is arranged immediately over the car-windows, and so shaped as to form a series, as it were, of arched continuations of the latter, while the other or upper system consists of one or more rectangular openings, *b*, and lying immediately above the former and below the line of the edge of the roof. But either of these systems may be used alone, although I prefer to use them in connection with each other.

Into this space is fitted a panel or panels, C, as the case may be, on which, where it is made of glass or other transparent medium, is painted or printed the destination of the car, as shown in Fig. 4, and in such color or tint as may be desired; or the glass may either be plain or tinted, and the ground painted, so as to be perfectly obscure, with the letters forming the destination shown in the natural transparent or translucent condition of the glass. Or the panels may be formed of glass having two colors or tints—one on one side and one on the other—and the characters forming the destination or other signal then cut clear through one of the colored or tinted sides, so that the letters would show in the shade, tint, or color of the other, in which case the latter tint or color should, if not transparent, at least be translucent, or partially transparent. Such plan is shown at Y, Fig. 2. Or the panel or panels may be made of wood or metal, in which case the letters, characters, or other devices forming the name, destination, or signal may be cut out or otherwise formed therein in the manner of forming stencil letters or devices, and answer the same purpose. Such panel is shown in Fig. 5.

In winter, plain or tinted glass panels may be used in connection with the stenciled panels or with skeleton-letter panels, in order to close their openings. These glass panels may be arranged either on the inside or outside of the stenciled panels, and should be made removable at will, either for cleaning purposes or to open the stenciled panel for ventilating purposes.

The end windows of the car opposite the lamp I also use for signaling purposes by providing them with a signal-panel, D, on which is formed a letter, character, or characters, or other device, as represented at Y in Fig. 2. These panels may also be made removable and interchangeable with other panels having other signal-letters, &c., for any useful purpose whatever. I also provide the end walls, as shown in Figs. 2 and 3, where the name "Young" is shown, with a signal-panel, E. In this case the word "Young" simply typifies any signal, destination, or route which it may be desirable to place thereon, and which, being above the line of the canopy or hood that protects the platform, but below the line of the ridge of the roof, is very conspicuous and easily seen from a great distance. This panel may also be removable and interchangeable.

In the practical application of the side panels to the car, one end of the car-body may be so constructed as to allow them to be withdrawn therefrom and replaced at pleasure, or provision may be made on the inside of the car for their removal by the use of a removable strip or strips, *c*, arranged on their inner side and at their upper and lower edges, and removably attached to the frame of the car-body; or, instead of the strips *c*, simple clamp-pieces or removable buttons at top and bottom may be used, or any other suitable and known device for the purpose, which, when in place, will securely hold the panels in their proper position, and yet allow them to be easily removed when required.

The panels C, Figs. 1 and 4, have printed on their face the words "Harvard Square" in one line, and the word "Broadway" in another line below.

The two lines are so arranged with respect to each other that the panels, whether made in one piece or two or more pieces, when properly arranged in the opening B for their reception, will show the words "Harvard Square" in the rectangular openings *b*, and the word "Broadway" in the arched openings *a* beneath.

This arrangement of the words "Harvard Square" in the upper line, and the word "Broadway" in the lower line, means that the destination of the car is to "Harvard Square," by way of "Broadway;" or, in other words, it means that the car runs to "Harvard Square," and in going or returning runs along "Broadway."

So the same company may have other cars running to "Harvard Square," but which, for instance, in going and returning, run along "Main Street" instead of "Broadway," in which case the panel in the arched openings *a* would show "Main Street" instead of "Broadway." The same idea is illustrated in the panel, Fig. 5, where the two terminal destinations of the car are given, to wit: "Cambridge" and "Boston," and in which the route to be taken by the car in going and returning is given as "Broadway." Had it been through "Main Street" it would have been so marked instead of "Broadway."

This arrangement of the destination-panels on the upper edges of the side walls of the car, immediately below the line of the roof, not only renders the panels more conspicuous and legible, because larger and bolder letters may be used, but it simplifies the construction of the cars for such purpose, and enables the same lights, as ordinarily arranged for the illumination of the car, to illuminate the panels—a point of great practical importance in the economy of working the road, especially where many cars are used on the route.

It is apparent that any one of the two systems of panels *a b* may be dispensed with, and but one be retained, and on which the destination-signal may alone be used, as, for instance, by marking in the rectangular openings *b*, as in the case before cited, "Cam-

bridge" and "Boston." Or the route may be combined therewith, as by being placed underneath in the same panels. The panels *b* under such circumstances may be slightly enlarged in width.

Or in the case of the arched panels *a*—the rectangular ones being omitted—they may also be enlarged, and one word printed on each panel, as, for instance, "Cambridge" and "Boston" by "Main Street." But as a rule I prefer the mode illustrated in Fig. 1.

In winter I prefer to use the glass or close panels, with transparent characters, changing it in summer to the stenciled panel, or to an open panel with skeleton letters attached thereto, with the view of providing increased ventilation, and of keeping the cars cool and their atmosphere sweet and pure.

The signal glass or panel D, in the end windows, marked with the letter Y, is also intended to denote, in connection with the side panels, the destination of the car, or it may be used as a signal having any required meaning attached thereto.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A car or other vehicle, the walls of which at their upper edges are constructed for the reception of signal or destination panels, in the manner substantially as set forth.

2. In combination with a car or other conveyance, a transparent, or partially transparent, or translucent, signal panel or panels, constructed substantially as described, and arranged in the upper edges of its walls, between the roof and the upper line of its windows, for the purposes set forth.

3. The combination of a removable or a system of removable signal-panels, substantially as described, with the walls of a car or other conveyance, for the purposes set forth.

4. The combination of a transparent or translucent panel, and of a stenciled or open skeleton-letter panel, with a car or other conveyance, constructed in the manner substantially as and for the purpose set forth.

5. The combination, with the walls of a car or other conveyance provided with a stenciled signal-panel or system of panels, substantially as described, of a removable glass or other transparent or translucent panel, or corresponding system of glass panels, for the purposes set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

ALBERT A. YOUNG.

Witnesses:
JAS. L. COLBY,
F. C. STEARNS.