

(No Model.)

J. A. WATT.

STREET CAR CURTAIN FIXTURE.

No. 293,291.

Patented Feb. 12, 1884.

Fig. 1.

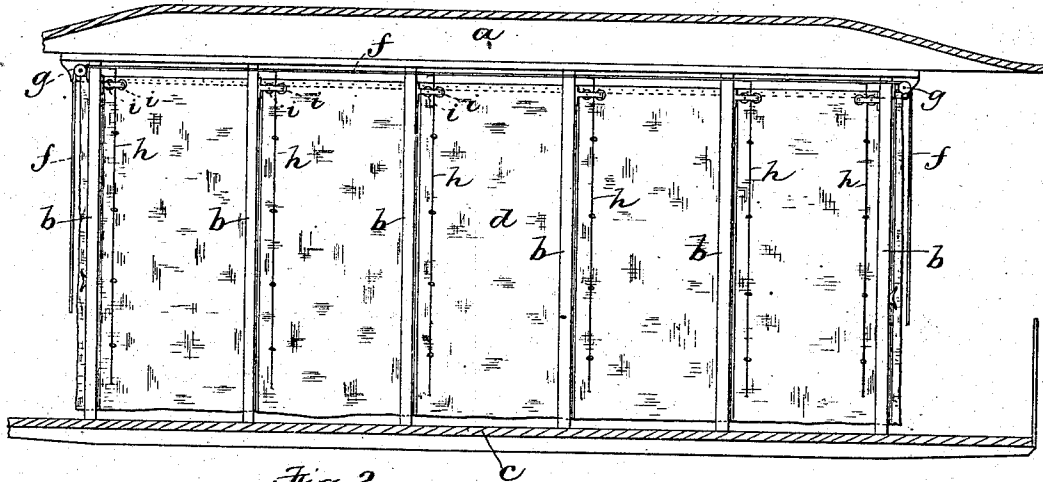


Fig. 2.

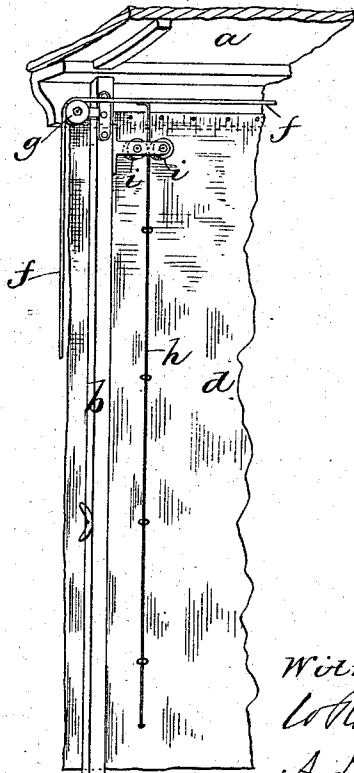


Fig. 4.

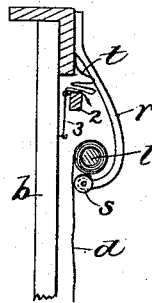
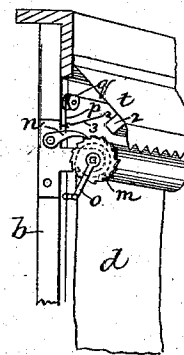


Fig. 3.



Witnesses.

W. H. G. G.
A. L. White

Inventor.

J. A. Watt.
by night & Bonin
Attys.

UNITED STATES PATENT OFFICE.

JOHN ALEXANDER WATT, OF BOSTON, ASSIGNOR OF ONE-FOURTH TO HENRY B. SELTON AND JAMES L. WHITAKER, BOTH OF SOMERVILLE, MASS.

STREET-CAR-CURTAIN FIXTURE.

SPECIFICATION forming part of Letters Patent No. 293,291, dated February 12, 1884.

Application filed July 3, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. WATT, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Street-Cars, of which the following is a specification.

This invention has for its object to enable the side curtains of an open street-car to be raised and lowered by an attendant at one end of the car; and it consists in the combination, with an open street-car or other open-sided covered vehicle, of curtains suspended at the sides of the vehicle and an operating device for each curtain extended to one or both ends of the car, whereby an attendant at an end of the car can raise or lower said curtains, as I will now proceed to describe and claim.

Of the accompanying drawings, forming part of this specification, Figure 1 represents a longitudinal section of a car provided with my improvement. Fig. 2 represents a perspective view of a portion of the roof, one of the supports thereof, and a portion of the curtain provided with my improvement. Figs. 3 and 4 represent views of modifications.

The same letters of reference indicate the same parts in all the figures.

In the drawings, *a* represents the roof, *b b* the roof-supports, and *c* the floor, of an ordinary open street-car.

d represents one of the curtains, which are suspended at the sides of the car, so that they can be lowered to protect the occupants from rain or sun. Heretofore these curtains have been gathered or rolled up when not in use and held by loops attached to the roof of the car. The conductor in raising or releasing the curtains has always been obliged to commence at one end of the curtain and raise or release the same by degrees until he reaches the opposite end, the operation being necessarily slow and therefore distracting the attention of the conductor from his ordinary duties, and often subjecting him to annoyance from water while he is performing said operation.

In carrying out my invention I provide an operating device adapted to raise the entire curtain, and extending to both ends of the car, so that it can be operated by the conductor from either end of the car.

In the embodiment of my invention shown in Figs. 1 and 2, said operating device is a cord, *f*, extending horizontally over roller *g g*, or other suitable supports, from one end of the car to the other, and a series of clew-lines, *h*, secured to the said cord and extending downwardly to the lower portion of the curtain to which they are firmly secured at their lower ends. The clew-lines *h* pass between rollers *i i*, journaled in brackets attached to the standards *b*. Rings *j* are attached to the curtain, and the clew-lines pass loosely through said rings, the latter keeping the curtain against the clew-lines when the curtain is lowered and causing it to gather or fold properly when raised.

It will be seen that when the curtain is lowered, as shown in Figs. 1 and 2, the conductor or the driver can, by pulling on one end of the cord *f*, draw the clew-line over the pulleys *i*, and thus raise the curtain from end to end. When the curtain is raised it may be held by making fast that end of the cord *f* that was pulled to raise the curtain. When it is desirable to lower the curtain it is only necessary to release the cord *f*, the curtain then falling by its own weight. The pulleys *i i* enable the cord *f* and its clew-lines to be pulled with equal ease in either direction.

In Figs. 3 and 4 I have shown one of the curtains supported by a roller, *l*, which is journaled in brackets attached to the end of the standards *b*. The roller has at one or both ends a ratchet, *m*, affixed to it, with which engages a dog, *n*, pivoted to a standard, *b*. The roller also has at one or both ends a crank, *o*, by which it may be rotated to wind up the curtain. The dog or dogs *n* hold the roller when the curtain is wound up, and when it is desirable to lower the curtain the roller is released by raising the dogs from their ratchets. Each dog, when two are employed, may be provided with a cord, *p*, running over a roller, *q*, to the opposite end of the car, so that both dogs can be raised by an attendant at one end of the car.

To prevent the central portion of the roller *l* from sagging, I provide an arm, *r*, attached to the car and having a rubber roller, *s*, projecting under the central portion of the roller *l* and supporting the latter. (See Fig. 4.)

5 *t* represents an awning or rain-guard, composed of a strip of canvas, attached to the roof of the car at one edge and having a stiff bar, 2, attached to its free edge. The bar 2 is connected by pivoted links 3 with the standards *b*. The strip *t* may be lowered, as shown in Fig. 3, to prevent rain from passing into the car over the roller *l*, or may be raised, as shown in Fig. 4, when not required for such use.

10 I claim—

15 1. The combination, with an open street-car or other open-sided covered vehicle, of curtains suspended at the sides of the vehicle, and an operating device for each curtain extended to one or both ends of the car, whereby an attendant at an end of the car can raise or lower said curtains, as set forth.

2. The combination, with an open street-car or like vehicle, of curtains suspended from the sides of the car, a substantially horizontal operating cord or cords extending over suitable supports from end to end of the car, and clew-lines secured to said cord or cords and to the lower portions of the curtains, whereby each curtain may be raised and lowered by an attendant at one end of the car, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 30th day of June, 1883.

JOHN ALEXANDER WATT.

Witnesses:

C. F. BROWN,
A. L. WHITE.