

W. H. PAIGE.  
Street-Car.

No. 205,205.

Patented June 25, 1878

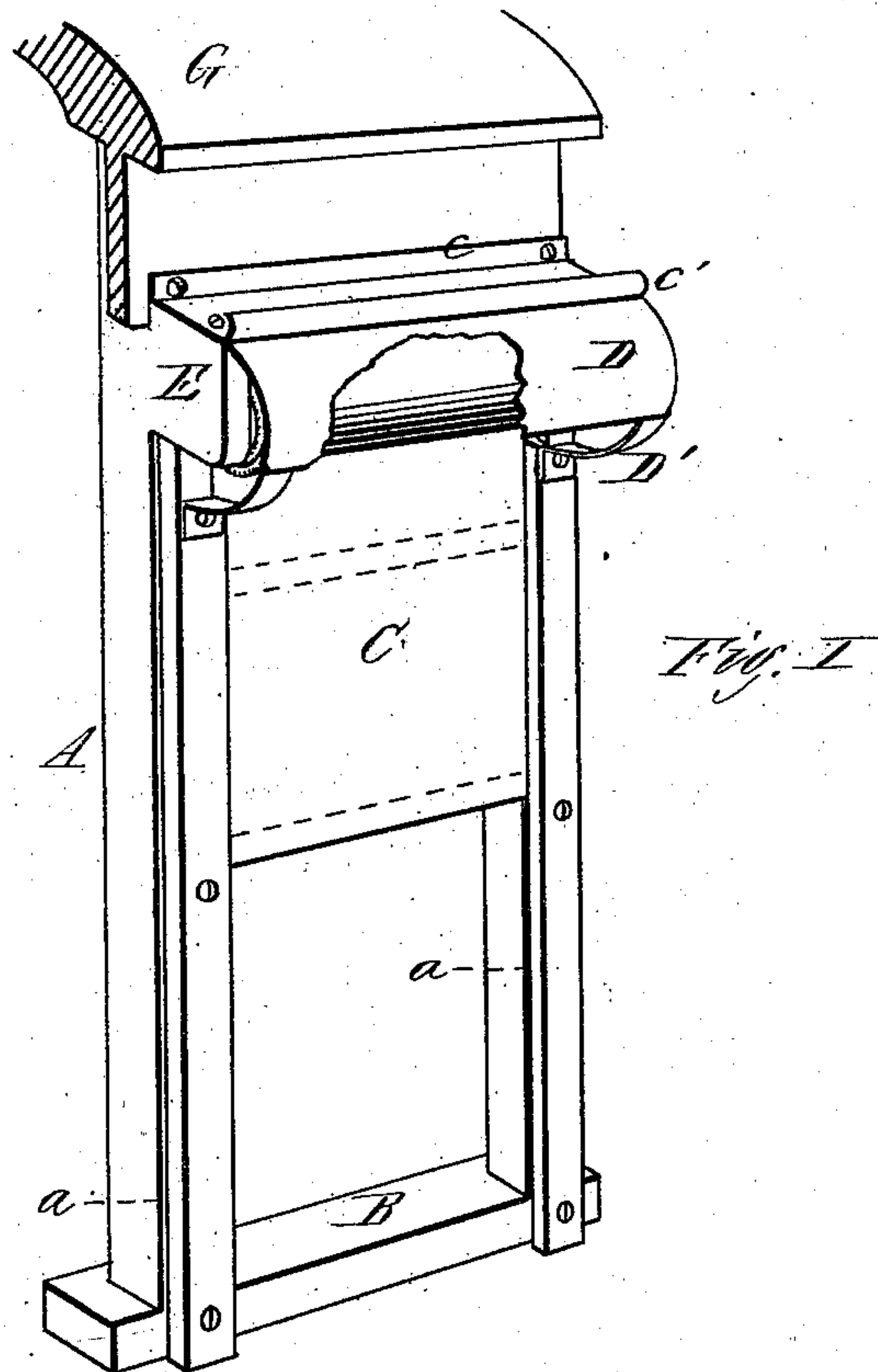


Fig. I

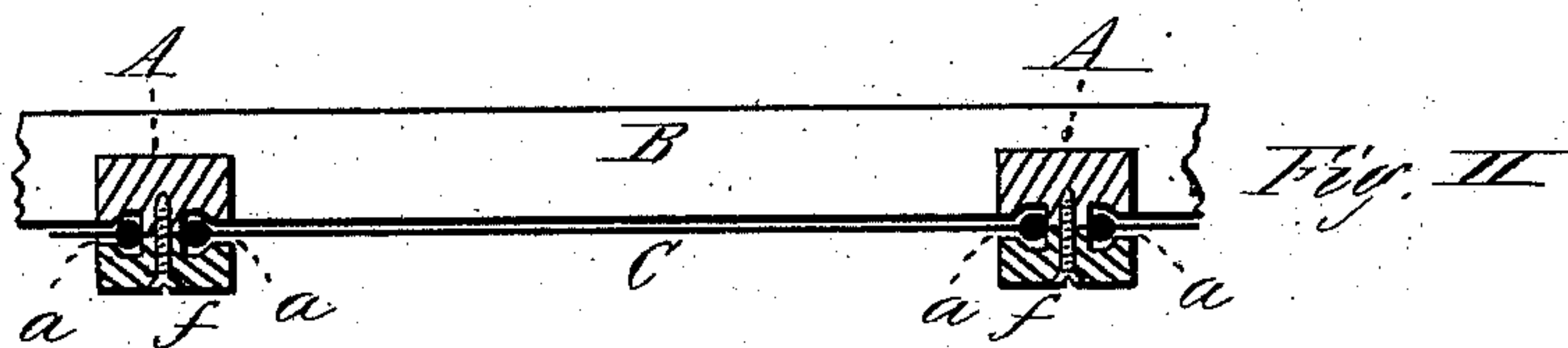


Fig. II

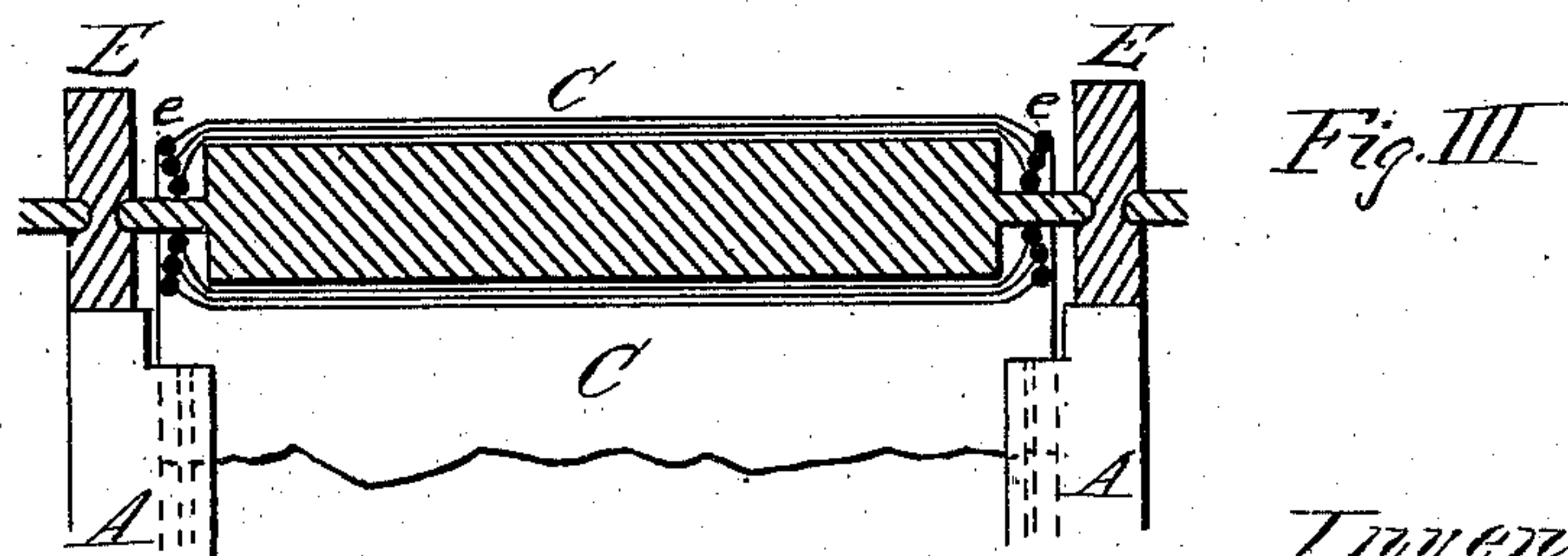


Fig. III

Witnesses.  
C. E. Buckland.  
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# UNITED STATES PATENT OFFICE.

WILLIAM H. PAIGE, OF SPRINGFIELD, MASSACHUSETTS.

## IMPROVEMENT IN STREET-CARS.

Specification forming part of Letters Patent No. **205,205**, dated June 25, 1878; application filed April 4, 1878.

*To all whom it may concern:*

Be it known that I, WILLIAM H. PAIGE, of Springfield, in the State of Massachusetts, have invented a new and useful Improvement in Open Railway-Cars; and that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, and to the letters of reference marked thereon.

My invention relates to that class of railway-cars which have openings along each side through which the passengers may enter and leave the car, the object being to close those openings by a curtain, when desired, to keep out the rain, wind, dust, or heat.

My invention consists of a curtain arranged to be wound on a roller, and having secured upon each edge a cord or wire coil thicker than the curtain itself, which runs in corresponding grooves made in the window-frame, or made in pieces attached thereto, so that said edges of the curtain may be run up and down freely in said grooves, and yet the edges will be held therein, so that comparatively no rain or dust can get past the edge of the curtain; and it also consists of a metal device arranged along the side of the car above the curtain, and extending partially down outside the curtain-roller, which forms a gutter for conducting away the water which runs from the roof, and also a housing or protection for the curtain and roller to preserve them from damage and injury.

Figure I is a perspective view of a portion of an open car having my invention applied thereto, with a portion of the housing broken away. Fig. II is a horizontal section of the same, and Fig. III is a vertical section through the curtain and roll.

In the drawings, Fig. I represents a portion of the side of an open car—that is, of a car made with openings along the side through which passengers may enter and leave the car, the openings being between each two posts A, and generally extended down to the sill B of the floor of the car. Brackets E are secured to the side of the car, above the opening in which is hung, in suitable bearings in the brackets, the ordinary curtain-roll, which may be furnished with any ordinary means of stopping it, in the winding or rolling mechanism,

which is not an essential feature of my invention.

The posts A are grooved at *a*, which may be done by making a groove in a piece, *f*, and afterward securing it to the post or frame A. The curtain C is made wider than the length of the roller, and has a cord or elastic wire coil, *e*, hemmed into each vertical edge, as shown in section in Fig. II, and when the curtain is drawn down the wire coil or cord *e* on each edge thereof passes down into the corresponding groove *a*, the opening of the groove being smaller than the coil or cord *e* on the edge of the curtain, and preventing the coil or cord from getting out of the groove, but being of sufficient size to permit the curtain to pass up and down freely. Pieces of webbing, tape, or other material may be sewed into or secured to the curtain at desirable intervals in its length, by which to draw the curtain down or raise it, so that persons sitting on the inside may take hold of one of the pieces attached for that purpose and raise or lower it to the desired point, and, by stopping it in the ordinary manner, it will be held there by the stop in the roller mechanism.

When the curtain rolls up on the roller its edges on each side project over the end of the roll, as the coil or cord takes up more space in rolling than the thickness of the curtain, and room is thus provided at the end of the roll for the coil to roll up. A strip of suitable metal, *c*, is secured to the side of the car above the brackets E, and extends outward over the brackets and curtains, and downward partially around the curtain and roller, as shown at D, with a vertical piece, *c'*, secured thereto at a suitable distance from the side of the car, which serves as a gutter or conductor to conduct off any water running from the roof G of the car, and also serving as a housing and covering for the rollers and curtains at the upper end. This metal gutter and housing may be also further supported by braces D', attached to the side of the car, or to the posts A, if deemed necessary.

When such curtains as are above described are arranged in the openings or entrances of an open car, if a shower comes up suddenly, or the sun should be uncomfortably hot, or the wind should blow in too strongly, the persons



sitting inside may, by seizing the tapes or pieces attached to the curtains, draw them down to the sill B of the car, closing each entire opening, and effectually keep out the rain, heat, or wind; or they may be stopped at such a height as to keep out the rain or heat and admit air.

I am aware that a flexible curtain has heretofore been made having its edges moving in vertical grooves, as shown in patent to F. C. Martin, February 27, 1872, and others; and I do not claim the same, nor any part thereof, irrespective of my construction of the vertical grooves and the curtain provided with the flexible ribs moving therein, whereby the edges are prevented from being pulled out of the grooves in a horizontal direction.

Having thus described my invention, what I claim as new is—

1. The curtain C, arranged to be moved up and down freely, and provided on each vertical edge with a flexible rib, *e*, in combination with the grooves *a*, made wider in the main part than at the side entrance, so that the rib will be permitted to move up and down freely in said groove, and yet will be prevented from being pulled out of said groove in a horizontal direction, substantially as described.

2. The combination of the gutter *c* with the piece *c'* made thereon and the part D, the whole attached to the car above the openings, and serving as a water-conduit and a housing or covering for the protection of the curtains and rollers, all substantially as described.

WILLIAM H. PAIGE.

Witnesses:

T. A. CURTIS,  
C. E. BUCKLAND.