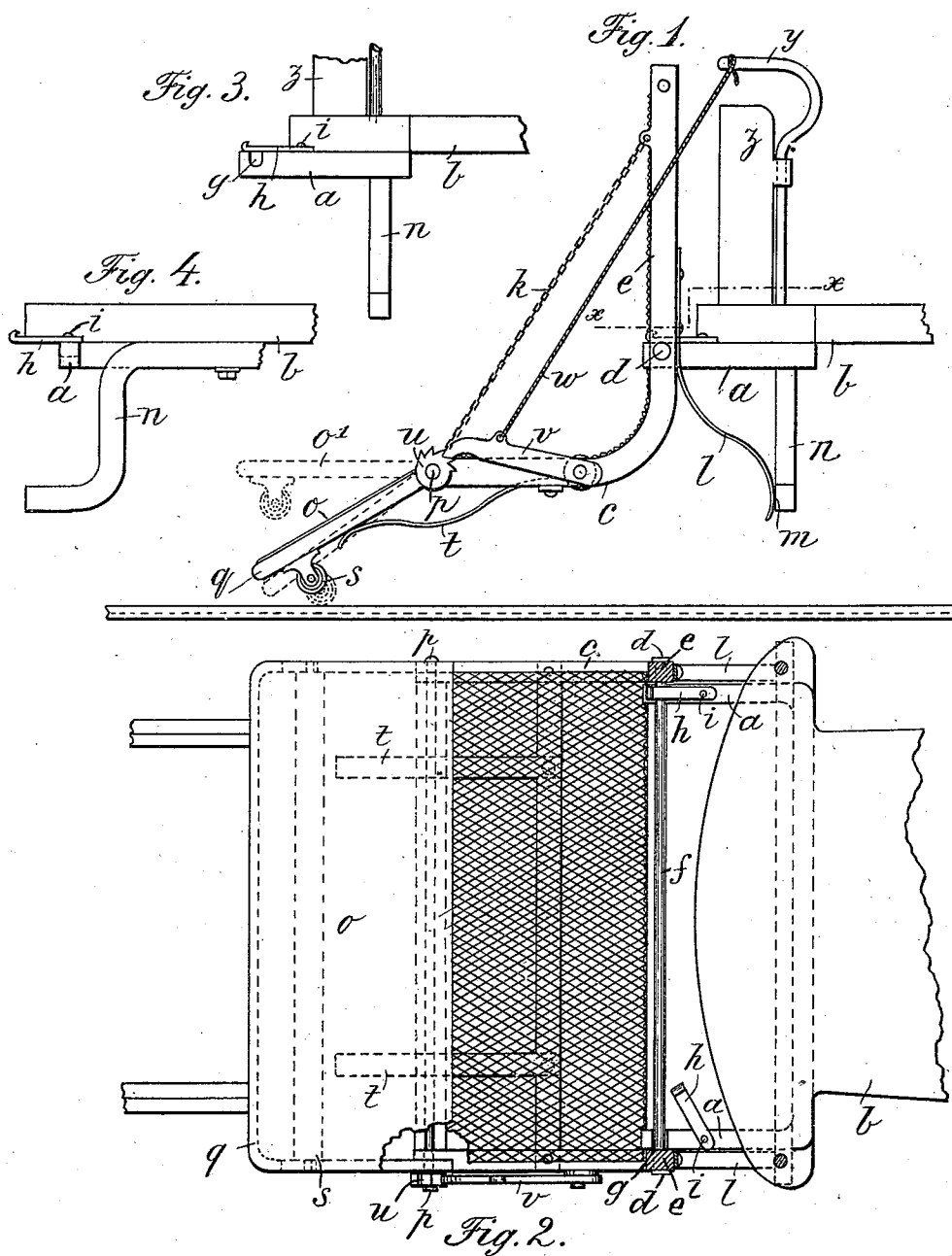


(No Model.)

C. A. HALLQVIST.
FENDER FOR STREET CARS.

No. 549,127.

Patented Nov. 5, 1895.



WITNESSES

W. J. Morgan
E. H. Morgan

INVENTOR.

Carl A. Hallqvist
By A. O. Thayer
att'y

UNITED STATES PATENT OFFICE.

CARL A. HALLQVIST, OF BROOKLYN, NEW YORK.

FENDER FOR STREET-CARS.

SPECIFICATION forming part of Letters Patent No. 549,127, dated November 5, 1895.

Application filed June 3, 1895. Serial No. 551,494. (No model.)

To all whom it may concern:

Be it known that I, CARL A. HALLQVIST, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Fenders for Street-Cars, of which the following is a specification.

My invention relates to fenders for street-cars designed for the protection of people accidentally struck by the rapidly-running cars; and it consists of a kind of chair carried on pivots in front of the platform in a way to yield to the impact of a body falling on it and thereby relieve the shock, and having an apron pivoted to the front edge of the seat in a way to afford relief in the first impact, as hereinafter described, reference being made to the accompanying drawings, in which—

Figure 1 is a side elevation of my improved fender attached to the front end of a car-platform, part of which is also represented. Fig. 2 is a plan view with some parts in section on line *x x*, Fig. 1. Fig. 3 is a detail of the platform of the car in side elevation, and Fig. 4 is a detail of the platform in front elevation.

I provide a couple of arms *a*, projecting forward a short distance from the end of the platform *b*, preferably from the under side, to which said arms are securely attached, and near the front ends of said arms suspend a chair-seat *c* on pivots *d*, attached to the back *e* of the chair a suitable distance above the seat, said pivots preferably being the terminal portions of a rod *f*, extending entirely across the chair-back from side to side.

The pivot-rod is seated in notches *g* in the arms *a*, allowing the chair to be removed at will, as for changing from one end of the car to the other when it may be desired to have one fender serve for both ends of the car, and keepers *h* are pivoted on the arms at *i* to secure the rod in position and to release it when the fender is to be displaced.

The seat *c* and the back *e* are furnished with suitable wire-gauze, canvas, or other approved webbing for a yielding receiver for bodies falling on the fender, and the forward extremity of the seat-frame and the upper part of the back-frame are coupled by chains *k* for staying them properly.

To the back of the chair a spring *l* is attached at each side, with bearing at *m* against a vertical arm *n*, pendent from the platform, said springs being to maintain the chair-seat in the normal position, as represented in Fig. 1, and to yield for the relief of a body falling on the chair. From the front edge of the chair-seat an apron *o*, jointed thereto at *p*, projects forward and downward to close proximity to the roadway for taking prostrate bodies upon to the chair-seat, said apron having a suitably-cushioned front edge *q* for avoiding injury to the bodies, and is provided with wheels or rolls at *s* to carry the front edge when thrust down by contact with the body.

Behind the apron springs *t* are provided to hold the front edge a little above the surface of the roadway normally and to afford yielding resistance when contact occurs. These springs are attached to the under side of the chair-seat, and in order to have suitable tension for proper resistance to the falling body without holding the apron too high a ratchet *u* is attached to it at the pivot *p*, and a pawl *v* is pivoted on the side of the chair-seat with which to control the ratchet and the apron.

It may sometimes be desirable to allow the apron to rise after receiving a body on it to facilitate reaching a safe position on the seat by the body. A cord or chain *w* is therefore connected to the pawl *v* and extended up to and connected with the guard-rail *y* at the top of the dashboard *z*, where the motorman may reach it and release the apron from the control of the pawl and permit the springs *t* to raise the apron up, as indicated in dotted lines *o'*, Fig. 1. Recoil of springs *l*, after first thrust on the apron and the seat, and the subsequent thrust of the falling body against the back *e* above the pivots *d* also elevate the apron and the front edge of the seat and facilitate safe lodgment of the body on the seat.

I claim—

1. The improved fender consisting of the chair pivoted on supporting arms extended forward of the platform of the car, said chair having a back extending upward in front of the dash-board, the apron jointed to the front edge of the chair seat, and having wheels or rolls to carry the front edge when depressed,

springs normally supporting the front edge of the apron above the roadway, and the springs behind the chair having support against pendent arms of the car, substantially as described. 15

5 scribed.
2. The improved fender consisting of the chair pivoted on supporting arms extended forward of the platform of the car, the apron jointed to the front edge of the chair seat, 10 and having wheels or rolls to carry the front edge when depressed, springs normally supporting the front edge of the apron above the

roadway, ratchet and pawl for controlling the springs, and the springs behind the chair having support against pendent arms of the car, substantially as described.

Signed at New York city, in the county and State of New York, this 23d day of May, A.D. 1895.

CARL A. HALLQVIST.

Witnesses:

W. J. MORGAN,
A. P. THAYER.