

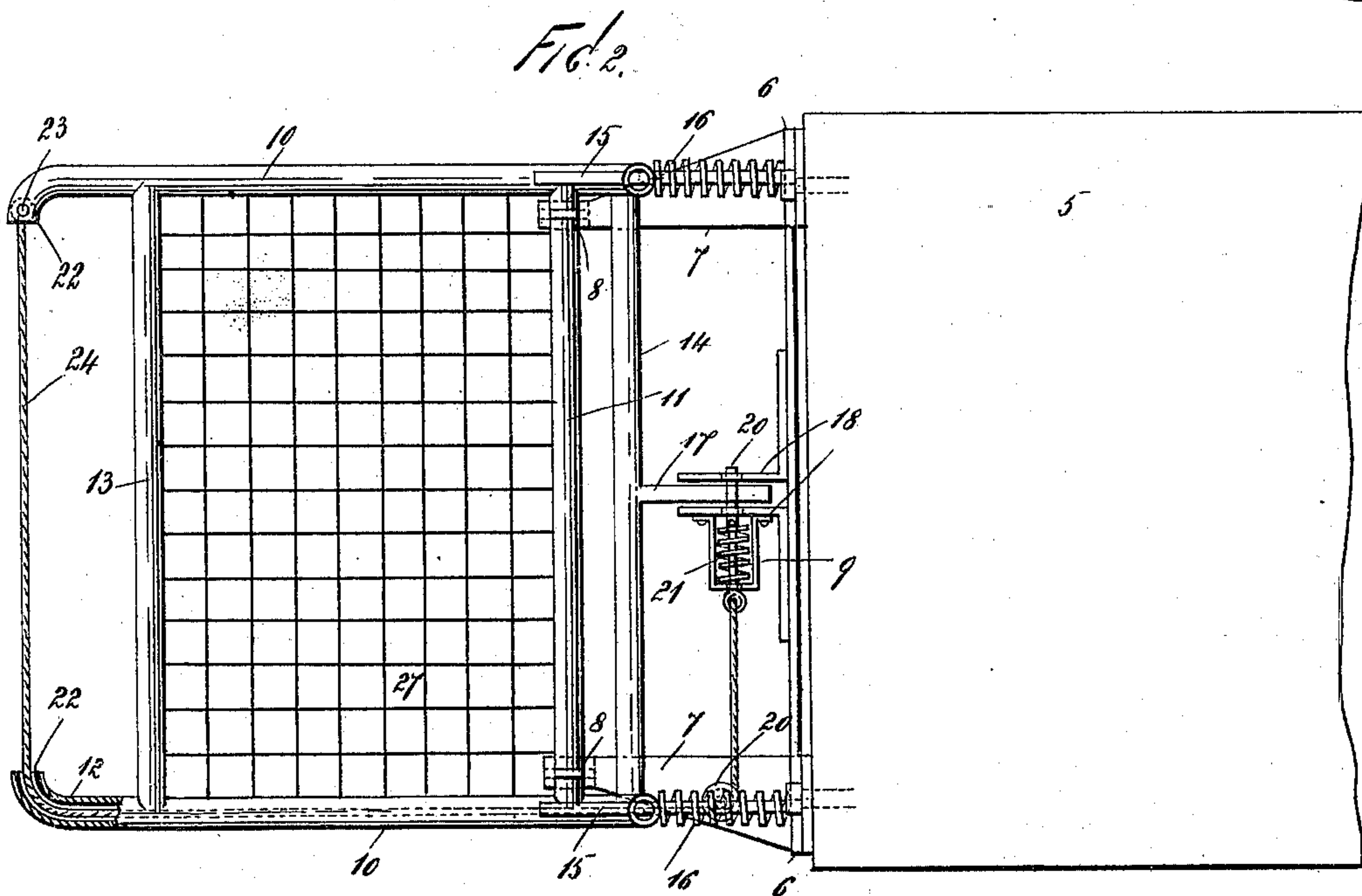
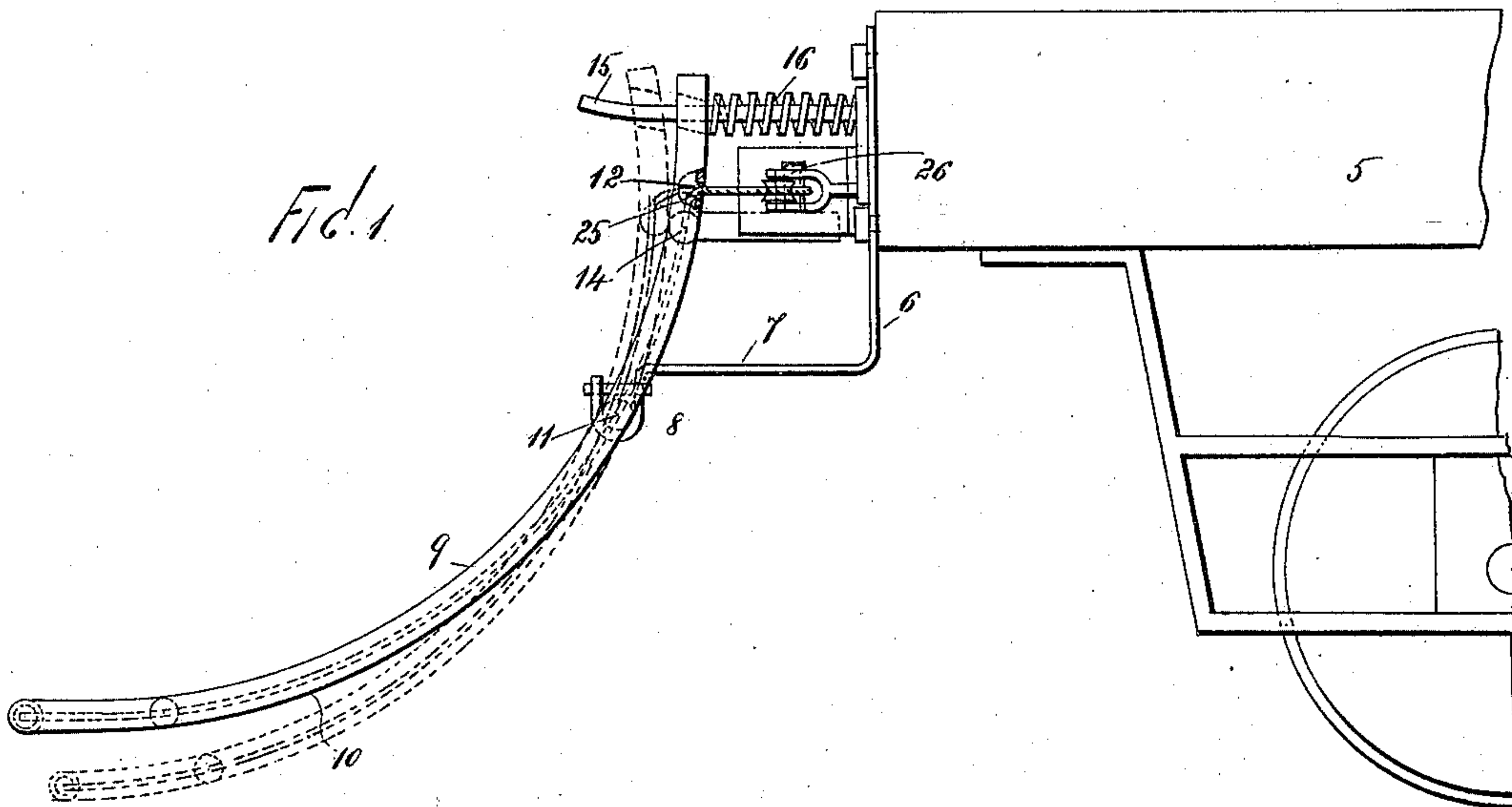
No. 647,083.

Patented Apr. 10, 1900.

G. L. GEHRIG.
CAR FENDER.

(Application filed July 21, 1899.)

(No Model.)



WITNESSES

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UNITED STATES PATENT OFFICE.

GEORGE L. GEHRIG, OF NEW YORK, N. Y.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 647,083, dated April 10, 1900.

Application filed July 21, 1899. Serial No. 724,591. (No model.)

To all whom it may concern:

Be it known that I, GEORGE L. GEHRIG, a citizen of the United States, residing at New York, (Long Island City,) in the county of Queens and State of New York, have invented certain new and useful Improvements in Car-Fenders, of which the following is a full and complete specification, such as will enable those skilled in the art to which it ap-
10 pertains to make and use the same.

This invention relates to fenders or guards for tramway-cars; and the object thereof is to provide an improved device of this class which is simple in construction and operation
15 and by means of which a person or object struck by a car when in motion will be prevented from passing beneath the car; and with this and other objects in view the invention consists in a fender constructed as here-
20 inafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a side view of one end of a car provided with my improved fender, part of the construction being broken away; and Fig. 2, a plan view thereof, part of the construction being shown in section.

In the drawings forming part of this specification the separate parts of my improvement are designated by the same numerals of reference in each of the views, and in said drawings I have shown at 5 a part of the platform of a tramway-car, and secured to the
35 end thereof are downwardly-directed plates or hangers 6, each of which is provided with an outwardly-directed extension 7, each of which is provided at its end with a keeper 8, which supports a fender or guard frame 9.
40 The fender or guard frame consists of curved side bars 10, which project upwardly and backwardly from the supports at 8 and downwardly and forwardly, as clearly shown in Figs. 1 and 2, and these side bars are con-
45 nected by a transverse shaft 11, which rests in the keepers 8. The side bars 10 of the fender-frame are tubular in form, as shown at 12, and are connected near their outer ends by a transverse rod 13, and the upwardly and
50 backwardly directed extensions of the side bars 10 above the keepers 8 are connected by a transverse rod or bar 14.

Secured to the end of the platform 5 are outwardly-directed arms 15, which pass loosely through the upper ends of the up-
55 wardly and backwardly directed extensions of the side bars 10 of the fender-frame, and mounted on said arms between the end of the platform and the upwardly-directed extensions of the side bars 10 are spiral springs 16.
60

The rod or bar 14 is provided centrally with a backwardly-directed arm 17, which passes between parallel keepers 18, secured to the end of the platform, and one of the keepers 18 is provided with a laterally-directed cas-
65 ing 19, through which passes a bolt 20, which also passes loosely through the keepers 18 and the arms 17 of the rod or bar 14, and wound on said bolt within the casing 9 is a spiral spring 21, one end of which is connected
70 with said bolt adjacent to the corresponding keeper 18, while the other end bears on the outer end of the casing 9.

The outer ends of the side bars 10 of the fender-frame are curved inwardly, as shown
75 at 22, and connected with one of said ends at 23 is a cord, cable, or other flexible device 24, which is carried transversely across the end of the fender-frame and passed into and
80 through the opposite side bar 10 and downwardly through the back thereof, near the upper end of the upwardly-directed extension, as shown at 25.

Supported parallel with the casing 9 is a pulley 26, around which the cable, cord, or other
85 flexible device 24 is passed, and said cable, cord, or other flexible device is then connected with the outer end of the bolt 20. The length of the cable 24 and the tension of the spring 21 in the casing 9 is such that normally the
90 bolt 20 is held in the position shown in Fig. 2, and in this position the outer end of the fender is supported at a predetermined distance above the ground, as shown in Fig. 1. In this position of the parts the bolt 20 ex-
95 tends just through the arm 17 and the keeper 18, opposite the casing 9, and the outer end of the fender cannot be depressed. If at any time when the car is in motion a person or
100 object should be struck by the fender, the impact of the blow would be received on the cable or other flexible device 24 and the bolt 20 would be drawn in the direction of the pulley 26 and out of the arm 17 of the rod or bar 14

and the outer end of the fender or guard will at once drop to the ground and rest thereon.

The body of the fender or guard within the frame thereof is composed of a network of
5 wire or other suitable material 27, and the person or object struck by the fender or guard would fall thereon, as will be readily understood, and such person or object would thus be prevented from passing under the car.

10 It will be apparent that under all ordinary circumstances the fender or guard will be securely held in the position shown in Fig. 1, in which the outer end thereof is supported at a predetermined distance above the ground
15 and does not interfere with the operation of the car, but only a slight blow on the cable 24 is necessary to withdraw the bolt 20 from the arm 17 of the rod or bar 14, and thus allow the outer end of the fender or guard to
20 fall to the ground, as shown in dotted lines in Fig. 1.

My improved fender or guard is simple in construction and operation and well adapted to accomplish the result for which it is intended, and is also comparatively inexpensive, and it will be apparent that changes in and modifications of the construction described may be made without departing from the spirit of my invention or sacrificing its
30 advantages.

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

35 1. A fender or guard for tramway-cars which is pivotally supported, and the outer end of which is normally held at a predetermined distance above the ground said fender or guard being provided with a spring-operated bolt or catch for holding it in its normal
40 position, and being provided at its front end with a transverse cable in operative connection with said bolt, substantially as shown and described.

45 2. A tramway-car provided with outwardly-directed supports, a fender or guard frame mounted therein and adapted to swing vertically, keepers secured to the platform of the car and projecting outwardly, an arm con-

nected with the fender or guard frame and projecting backwardly between said keepers, 50 a spring-operated bolt passing through said keepers and through said arm, and a cable or other flexible device extending transversely across the outer end of the fender or guard frame, and in operative connection with said 55 bolt, substantially as shown and described.

3. A tramway-car provided with outwardly-directed supports, a fender or guard frame mounted therein and adapted to swing vertically, said fender or guard frame being pro- 60 vided with upwardly and backwardly directed extensions, arms secured to the platform of the car and passing outwardly through said extensions, springs mounted on said arms, keepers secured to the platform of the car, an 65 arm connected with the fender or guard frame and passing backwardly between said keepers, a spring-operated bolt passing through the keepers and through said arm, the sides of the fender or guard frame being tubular in 70 form, a cable or other flexible device connected with one side of said fender or guard frame at the outer end thereof and passed transversely across said fender or guard frame and connected with said bolt, substantially as 75 shown and described.

4. A tramway-car provided with a fender or guard which is pivotally supported and held at a predetermined distance above the ground by a spring-operated bolt or catch, one side of 80 said fender or guard being tubular in form, and a cable or other flexible device connected with the opposite side at the outer end thereof, and carried transversely across the fender or guard and passed through the tubular side 85 and connected with said bolt, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 20th 90 day of July, 1899.

GEORGE L. GEHRIG.

Witnesses:

F. A. STEWART,
V. M. VOSLER.