(No Model.)

C. F. MAISCH.

CAR FENDER.

No. 571,779. Patented Nov. 24, 1896.

Fig. 1.

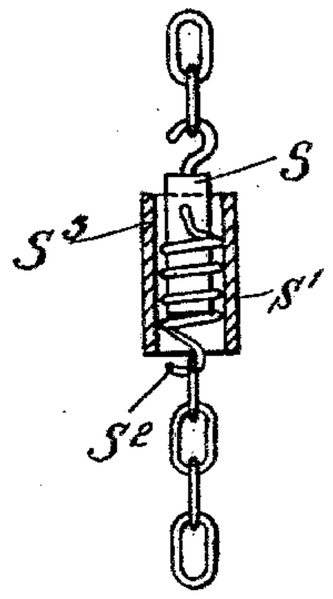


Fig. 2

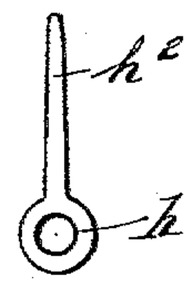


Fig. 3.

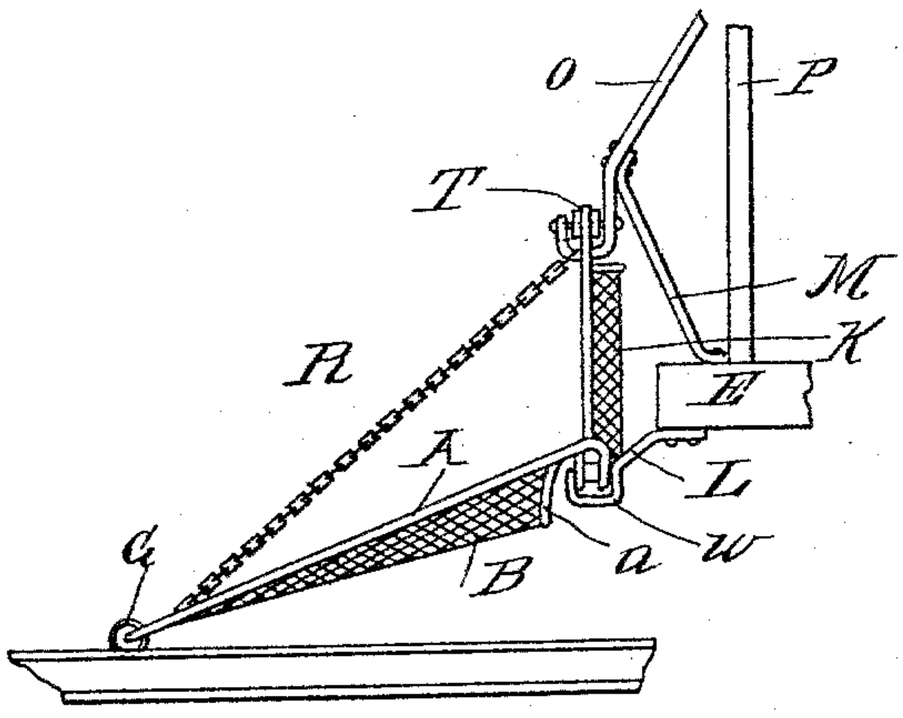
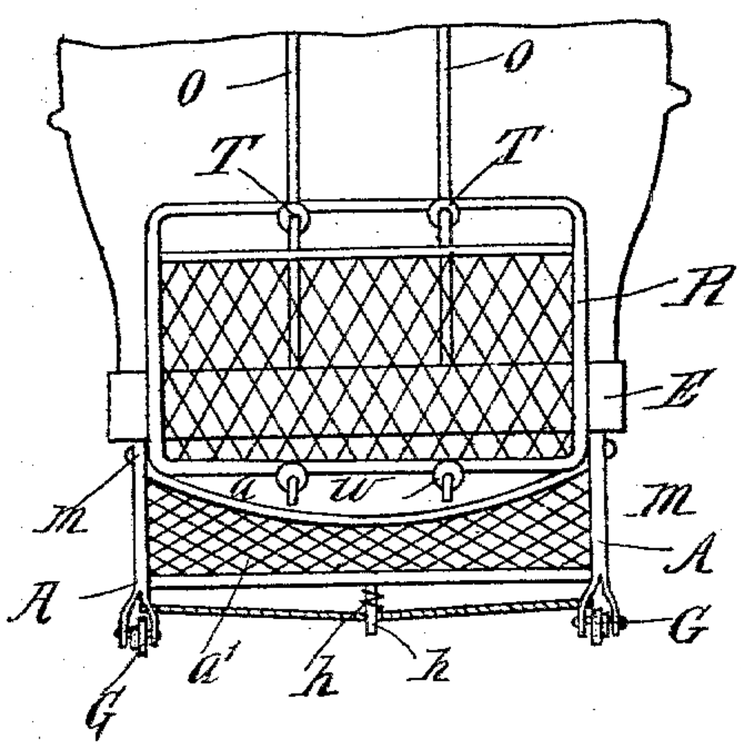


Fig. 4



WITNESSES

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CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 571,779, dated November 24, 1896.

Application filed November 14, 1895. Serial No. 568,872. (No model.)

To all whom it may concern:

Be it known that I, CHARLES FERDINAND MAISCH, a citizen of the United States, and a resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Car-Fenders, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar letters of reference indicate corresponding parts.

This invention relates to fenders or guards for tramway-cars; and the object thereof is to provide an effective device of this class which is simple in construction and operation and which is adapted to prevent the serious and sometimes fatal accidents which frequently result from the striking of a person by such cars while in motion.

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

Figures 1 and 2 represent details of the construction; Fig. 3, a view similar to Fig. 1 of a modified form of construction, and Fig. 4 a front view thereof.

In the practice of my invention I provide a main fender or guard frame shown and preferably composed of two frames, one of which is placed within the other. The outer frame is composed of side bars A, a rear end bar *a*, and a front end bar *a'*, and the inner frame is rectangular in form and adapted to be secured therein, said inner frame being provided with a body portion B of wire mesh or similar material. The rear cross-bar *a* is provided centrally with a coupling-head C, in which is formed a central opening by means of which the rear end of the main fender-frame may be pivotally connected with hangers D, secured to the bottom of the platform E of the car, and the side bars A of the main fender-frame are extended forward and divided or provided with forks or bearings F, in which are mounted rollers G, which are adapted to travel on the rails *g* of the track, and extending from one of these forks or bearings to the other is a cord or chain H, which passes through the head *h* of the bolt *h'*, which is free to move in the forward cross-bars of the main fender-frame, and mounted on this bolt *h'* is a spiral spring h^2, (shown in Fig. 4,) and by means of this construction a person who happens to be in the way will be struck by the yielding cord or chain H, as will be readily understood, and thrown upon the body portion B of the main fender or guard. I also employ a supplemental fender-frame K, which is adapted to be secured or supported in front of the platform, and is also provided with a body portion *k* of wire mesh or similar material, and this supplemental frame K is supported by means of rods or braces L, which are secured to the bottom of the platform E and extend downwardly and forwardly and under the lower side of said supplemental frame as shown, and also by additional braces or rods M, two of which are employed and which extend upwardly and connect with rods or braces O, connected with the upper portion of the dashboard P, the lower ends of which are provided with hooks O', which pass under and hold the upper part of the supplemental frame. I also employ side chains R, one of which is employed on each side of the main fender-frame, and said chains are connected with the forward portion of said frame and extend upwardly and backwardly, and are connected with the upper portion of the supplemental frame K, and placed in each of these chains is a differential or tension-regulating device composed of a short cylinder S, with one end of which one part of the chain is connected, and a spiral spring S', wound thereon, one end of which is connected with said cylinder and the other end of which is provided with a loop S^2, with which the other portion of the chain is connected, and mounted on this cylinder and spring is a tubular sleeve S^3, this construction being clearly shown in Fig. 2.

The operation of this form of construction will be readily understood from the foregoing description when taken in connection with the accompanying drawings. When the separate parts are connected with the car, as shown and described, the main fender-frame extends forward and the rollers G thereof rest upon the rails of the track, and by means of the pivotal connection of this fender-frame with the platform of the car I provide for turning curves, and at the same time retaining the fender or guard frame in position,

and if a person should be struck by the main fender or guard frame when the car is in motion said person or object would be thrown upon the body portion B thereof and the passage of such person or object beneath the car would thereby be avoided, and in this operation the side chains R also aid, and two or more of these side chains may be employed, if desired.

In the construction shown in Figs. 3 and 4 the supplemental frame K is supported on rollers F, which are connected with the braces or stays O and M, and similar rollers W are also provided at the bottom of said supplemental frame, said rollers being supported by the braces or rods L, and in this form of construction the main fender-frame is pivotally connected with the lower portion of the supplemental frame, as shown at *m*, and said main frame is composed of a single frame comprising the side bars A, the forward end bar *a'*, and the rear end bar *a*, which in this case is curved downwardly, as shown in Figs. 3 and 4, so as to provide room for the rollers T and W, and by means of the rollers T and W, by which the supplemental frame is supported, I provide for the lateral movement of the supplemental frame and the main frame which is connected therewith, and this movement is also of great advantage in turning corners or short curves, as will be readily understood, the operation of which form of construction is substantially that hereinbefore described, and it will thus be seen that I accomplish the object of my invention by means of a device which is simple in construction and operation, and well adapted to produce the result for which it is intended.

My invention is not limited to the exact form, construction, and arrangement of parts shown and described, and I therefore reserve the right to make all such changes therein and modifications thereof as fairly come within the scope of the invention.

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

1. The combination with a car, of a supplemental fender-frame supported in rollers in front thereof, and a main fender-frame, the rear end of which is pivotally connected with the lower side of said supplemental frame, said main frame being projected forward and provided with rollers which are adapted to travel on the rails of the track, and said supplemental-frame rollers being supported by braces connected with the platform of the car, and with the dashboard, substantially as shown and described.

2. The combination with a car, of a supplemental fender-frame supported in rollers in front thereof, and a main fender-frame, the rear end of which is pivotally connected with the lower side of said supplemental frame, said main frame being projected forward and provided with rollers which are adapted to travel on the rails of the track, and said supplemental-frame rollers being supported by braces connected with the platform of the car, and with the dashboard, and the forward end of the main fender-frame being connected with the upper side portions of the supplemental frame, by means of side chains, 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 8th day of November, 1895.

CHARLES FERDINAND MAISCH.

Witnesses:

HANS WENIGER,

F. W. LIDTKE.