

(No Model.)

2 Sheets—Sheet 1.

F. SPRICK.
CAR FENDER.

No. 533,565.

Patented Feb. 5, 1895.

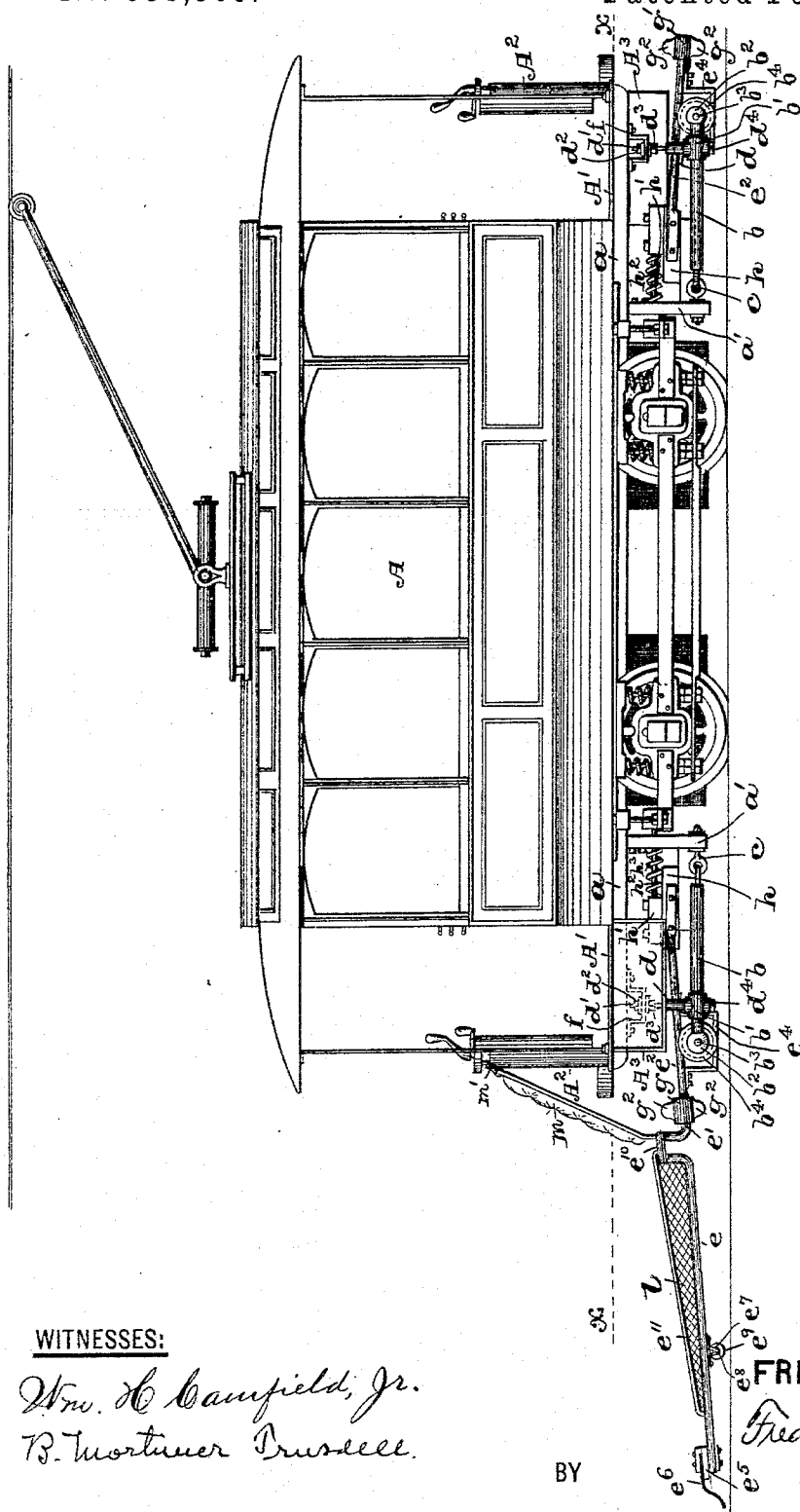


FIG. 1

WITNESSES:

Wm. H. Campfield, Jr.
B. Mortimer Buswell.

INVENTOR:

FRIEDRICH SPRICK.

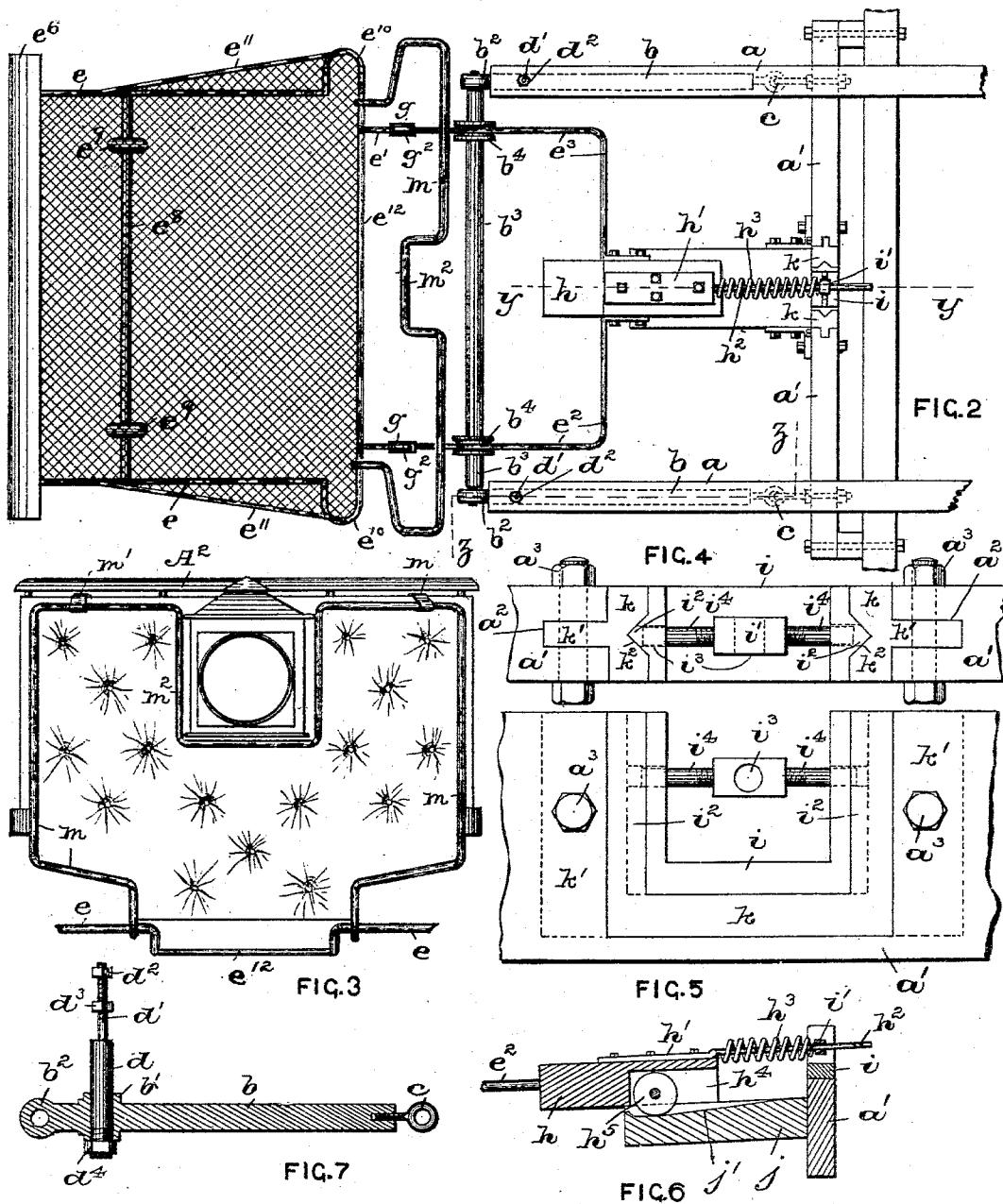
Fred C. Fraentzel
ATTY.

BY

2 Sheets—Sheet 2.

No. 533,565.

Patented Feb. 5, 1895.



WITNESSES:

Wm. H. Bamfield, Jr.
B. Mortimer Russell.

INVENTOR:

FRIEDRICH SPRICK.

BY *Fred C. Fraentzel*, ATT'Y.

UNITED STATES PATENT OFFICE.

FRIEDRICH SPRICK, OF WEST HOBOKEN, NEW JERSEY.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 533,565, dated February 5, 1895.

Application filed September 10, 1894. Serial No. 522,532. (No model.)

To all whom it may concern:

Be it known that I, FRIEDRICH SPRICK, a subject of the Emperor of Germany, residing at West Hoboken, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Car-Fenders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention has for its object to provide an adjustable fender for street cars, such as electric or cable cars, which projects in front of the dash board of the car and is capable of a backwardly sliding movement, when coming in contact with an obstruction on the track, and a further object of the invention is to provide a fender, the basket or catch-portion of which is detachably connected with the fixed frame portion secured beneath the platforms, whereby said basket can be connected with the car at either end thereof.

The invention therefore consists in the novel form of fender herein shown and described, and also in certain novel arrangements and combinations of parts to be hereinafter fully described and finally embodied in the clauses of the claim.

The invention is illustrated in the accompanying sheets of drawings, in which similar letters of reference indicate corresponding parts in all the figures.

In said drawings, Figure 1 is a side view of a car provided with a fender embodying the principles of my invention. Fig. 2 is a horizontal section, taken on line x in Fig. 1, illustrating the arrangement of stringer pieces connected with the car body, and showing, in plan view, the arrangement of my novel fender operatively connected therewith. Fig. 3 is a front view of a padded frame connected with the fender, adapted to be brought in front of the dash board of the car. Figs. 4 and 5 are a top and side view respectively, of a certain bearing used in connection with the device. Fig. 6 is a vertical section taken

on line y in Fig. 2, and Fig. 7 is a similar section, taken on line z in the same figure.

In the drawings, A represents the body of a car; A', the platforms; A², the dash boards, and A³ the steps.

The fender of the car is arranged partly underneath and partly in front of the platform, as illustrated in Fig. 1, and is slightly downwardly inclined and capable of a backwardly or longitudinally sliding movement on fixed frames, one of which is secured underneath each platform of the car, as shown. Said fixed frames consist essentially of the side bars b , pivoted at their rear ends, preferably by eye-bolts c , to the cross beam a' secured to the stringer pieces a of the car body, as shown, or said side bars may be secured to said cross bar a' in any other well known manner.

Each side bar b is provided at or near its forward end with a perforated enlargement b' in which is arranged a supporting bolt d . The screw-threaded portion d' of each of said bolts d , of which there is one in each bar b , project through openings in suitable brackets f , see Fig. 1, and are adjustably connected with and held in said brackets by nuts d^2 and d^3 , while the nut or head d^4 of the bolt supports the free end of the side bar b , with which it is connected. At the extreme free end of each side bar b is an eye or loop b^2 forming bearings for the turning bar b^3 , provided with the grooved wheels or rollers b^4 .

The fender frame, which consists, essentially, of the bent frame e , formed substantially as shown, and provided with short projections or fingers e' , is detachably connected, by means of thumb-nuts g and g' , or others similar devices, to the backwardly extending rods e^2 and e^3 , which are secured at the back to a weight h . Secured to said weight is a plate h' from which extends a rod h^2 , which projects through a pivot block i' in a sliding bearing i in the cross beam a' , and operates in the manner to be described more fully hereinafter. Between said pivot block i' and the plate h' , encircling said rod h^2 , is a coiled spring h^3 . The weight h acts with sufficient pressure when the frame work of the fender is placed upon the wheels or rollers b^4 , that the fender will be balanced, and the front portion of the fen-

der extends slightly above the surface of the ground. Connected with the under sides of said rods e^2 and e^3 are suitable U-shaped straps e^4 which pass beneath the said wheels or rollers, to prevent the fender frame from being displaced from its balanced position on said wheels, but still permitting a slightly backward or longitudinal movement of the fender. The fender e is provided at the front with a connecting piece e^5 having secured thereto a rubber or other flexible guard e^6 .

Arranged in suitable bearings e^7 , may be a cross rod e^8 provided with wheels or rollers e^9 , which come in contact with the ground, when the fender meets an obstruction and hold said connecting piece slightly above the surface of the ground to prevent injury to the fender frame.

By means of the adjusting bolts d , the fixed side bars b can be suitably raised or lowered and the fender frame e adjusted to meet the necessary requirements.

When the fender frame e meets an obstruction, the fender immediately receives a backwardly sliding movement. At the same time, a roller or wheel h^5 in a groove h^4 in said weight h , is forced up on an incline j' in a support j connected with the cross beam a' , thereby causing the forward portion of the fender frame to be lowered and bringing the wheels or rollers e^9 down upon the ground. The coiled spring h^3 takes up the shock and the backwardly moving rod h^2 causes the bearing i to move or slide upwardly in the guide-block k . Said block is provided with suitable flanges k' which fit into recessed portions a^2 in the cross beam a' and are secured therein by bolts a^3 , substantially as illustrated in Figs. 4 and 5.

The bearing i is provided with <-shaped slides i^2 adapted to move in correspondingly shaped guides k^2 in the block k and the pivot block i' , provided with the perforation i^3 through which the rod h^2 extends, is pivotally connected with the sliding bearing i by suitable pins i^4 which extend into and turn in openings in said bearing i , as clearly shown in said Figs. 4 and 5. Thus it will be seen, that the fender frame is capable of a backwardly sliding motion to lessen the shock when suddenly coming in contact with an obstruction on the track, and the fender being balanced on the wheels b^4 , is also capable of being automatically lowered at the front to catch the obstruction in the netting l connected with the frame e . Said frame is slightly raised at the back, as at e^{10} , and may be provided with connecting braces e^{11} to which the netting is fastened, thereby forming a scoop or basket, as shown in Figs. 1 and 2.

Pivotally connected with a cross piece or rod e^{12} of the frame e is a wire frame m provided with clamps m' for detachably connecting said frame to the dash board of the car, as illustrated in Fig. 3. Said frame is suitably padded, as shown, which prevents a person from coming in contact with the bumper

or the coupling pin of the car, and is provided at m^2 with the bent portion of the frame to permit the use of the usual head-light at night. The said thumb pieces g and g' , mentioned herein-above, are provided with oppositely extending ears or lugs g^2 , by means of which said thumb pieces can be readily turned, and the screw-threads within said thumb pieces and on the connecting frame-portions of the fender, being right and left, the basket or catch portion of the fender can be quickly detached from the frame work fixed underneath the one platform of the car, and can be readily connected with the similarly arranged frame work secured beneath the other platform of the car. Thereby, any two cars can be coupled together, when necessary, and only one basket or catch-portion being required, the construction of my novel form of fender is greatly simplified and the cost of construction reduced.

To remove the catch-portion, the cushioned or padded frame m is disconnected at the top from the dash board and folded down upon the frame e , as will be understood from an inspection of Figs. 1, 2 and 3.

It will be understood that the special construction and arrangements and combinations of parts herein shown, are given only to illustrate one practical embodiment of the invention, and hence I do not wish to be understood as limiting myself to the exact details of construction herein shown, as the same may be varied in practice, without departing from the scope of my invention.

Having thus described my invention, what I claim is—

1. In a fender for cars, the combination, of a frame underneath the platform, comprising therein side bars, as b , and a cross piece having rollers thereon, of a fender frame balanced on said rollers and movable longitudinally of the car, substantially as and for the purposes set forth.

2. In a fender for cars, the combination, of a frame underneath the platform, comprising therein side bars, as b , and a cross piece having rollers thereon, of a fender frame weighted at one end and balanced on said rollers and movable longitudinally of the car, a spring-actuated rod connected with the weighted end of the fender, and a sliding bearing for said rod, connected with the frame work of the car, substantially as and for the purposes set forth.

3. In a fender for cars, the combination, of a frame underneath the platform, comprising therein side bars, as b , and a cross piece having rollers thereon, of a fender frame weighted at one end, comprising therein a slotted weight h , a roller in said slot, movable on an incline connected with the frame work of the car, a spring-actuated rod connected with said weight h , and a sliding bearing for said rod, connected with the frame work of the car, substantially as and for the purposes set forth.

4. In a fender for cars, the combination, of a frame underneath the platform, comprising therein side bars, as *b*, and a cross piece having rollers thereon, of a fender frame weighted at one end and balanced on said rollers and movable longitudinally of the car, a spring-actuated rod connected with the weighted end of the fender, and a sliding bearing for said rod, consisting, essentially, of a sliding bearing *i*, a block *k*, and a perforated pivot block *i'*, substantially as and for the purposes set forth.

5. In a fender for cars, the combination, of a frame underneath the platform, comprising therein, pivotally arranged and vertically adjustable side bars, and a cross piece having rollers thereon, of a fender frame balanced on said rollers and movable longitudinally of the car, substantially as and for the purposes set forth.

6. In a fender for cars, the combination, of a frame underneath the platform, comprising therein, pivotally arranged and vertically adjustable side bars, as *b*, adjusting bolts *d* connected with said side bars and with brackets secured to the platform of the car, and a cross piece having rollers, of a fender frame balanced on said rollers and movable longitudinally of the car, substantially as and for the purposes set forth.

7. In a fender for cars, the combination, of a frame underneath the platform, comprising therein, pivotally arranged and vertically adjustable side bars, as *b*, adjusting bolts *d* connected with said side bars and with brackets secured to the platform of the car, and a cross piece having rollers, of a fender frame balanced on said rollers and movable longitudinally of the car, a weight *h* connected with said frame, a spring-actuated rod connected with said weight, and a sliding bearing for said rod, connected with the frame work of the car, substantially as and for the purposes set forth.

8. In a fender for cars, the combination, of a frame underneath the platform, comprising therein, pivotally arranged and vertically adjustable side bars, as *b*, adjusting bolts *d* connected with said side bars and with brackets secured to the platform of the car, and a cross piece having rollers, of a fender frame balanced on said rollers and movable longitudinally of the car, a weight *h* connected with said frame, a spring-actuated rod connected with said weight, and a sliding bearing for

said rod, connected with the frame work of the car, consisting, essentially, of a sliding bearing *i*, a block *k*, and a perforated pivot block *i'*, substantially as and for the purposes set forth.

9. In a fender for cars, the combination, of a frame underneath the platform, a fender frame rigidly and detachably connected therewith, and a padded frame, as *m*, hinged to said fender frame and adapted to be arranged in front of the dash board of the car, substantially as and for the purposes set forth.

10. The herein described fender for cars, comprising therein, side bars, as *b*, pivotally and adjustably connected underneath the platform of the car with the frame work thereof, a bar *b*³ having rollers *b*⁴, rods *e*² and *e*³ arranged on said rollers, a weight connected with said rods, and a fender frame *e*, having fingers or projections *e'*, and devices *g* and *g'* for detachably connecting said frame *e* with the rods *e*² and *e*³, substantially as and for the purposes set forth.

11. The herein described fender for cars, comprising therein, side bars, as *b*, pivotally and adjustably connected underneath the platform of the car with the frame work thereof, a bar *b*³ having rollers *b*⁴, rods *e*² and *e*³ arranged on said rollers, a weight connected with said rods, and a fender frame *e*, having fingers or projections *e'*, and devices *g* and *g'* for detachably connecting said frame *e* with the rods *e*² and *e*³, a cross rod *e*³ near the front of said frame *e* having rollers thereon, substantially as and for the purposes set forth.

12. The herein described fender for cars, comprising therein, side bars, as *b*, pivotally and adjustably connected underneath the platform of the car with the frame work thereof, a bar *b*³ having rollers *b*⁴, rods *e*² and *e*³ arranged on said rollers, a weight connected with said rods, and a fender frame *e*, having fingers or projections *e'*, and devices *g* and *g'* for detachably connecting said frame *e* with the rods *e*² and *e*³, and a padded frame, as *m*, hinged to said frame *e*, adapted to be arranged in front of the dash board of the car, substantially as and for the purposes set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 7th day of September, 1894.

FRIEDRICH SPRICK.

Witnesses:

FREDK. C. FRAENTZEL,
WM. H. CAMFIELD, Jr.