

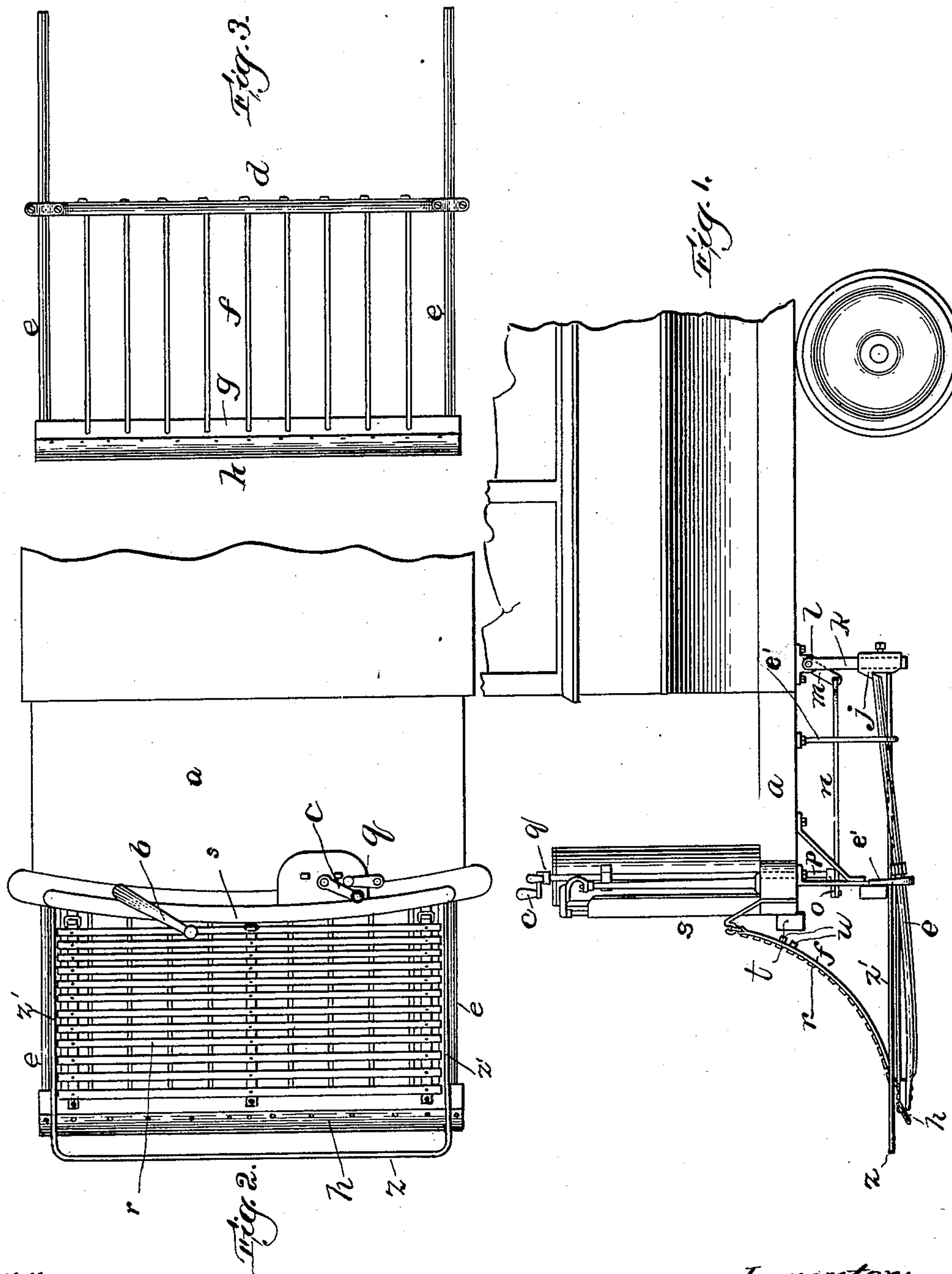
No. 698,915.

Patented Apr. 29, 1902.

M. F. FIELD.
CAR FENDER.

(Application filed July 12, 1900.)

(No Model.)



Witnesses:

Arthur T. Randall
Annie J. Dailey

Inventor:
M. F. Field

by J. P. Davis
Attorney

UNITED STATES PATENT OFFICE.

MILLARD F. FIELD, OF BOSTON, MASSACHUSETTS.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 698,915, dated April 29, 1902.

Application filed July 12, 1900. Serial No. 23,286. (No model.)

To all whom it may concern:

Be it known that I, MILLARD F. FIELD, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Car-Fenders, of which the following is a description sufficiently full, clear, and exact to enable those skilled in the art to which it appertains or with which it is most nearly connected to make and use the same.

This invention relates to fenders for street-railway cars, and particularly to the type in which provision is made for the lowering of the front of the fender either automatically through the effect of encountering a person or object on the track or manipulatively by the motorman.

One object of the present invention is to provide for such lowering of the front part of the fender in cases where provision is made for sliding the fender-frame bodily to and from a position beneath the platform of the car.

Another object is to provide for effecting the lowering of the front of the fender by a movement of the handle of the car-controller to a position where the power is entirely cut off.

The invention also aims to provide an improved form of latching means for maintaining the fender in its normal elevation, said means adapted to be released either by the operation of a feeler extending in front of the fender or by manipulation on the part of the motorman.

With the above-stated objects in view the invention consists in certain novel features of construction and combinations of parts, the essential elements of which are recited in the appended claims and a preferred form of embodiment of which is illustrated in the accompanying drawings, wherein—

Figure 1 is a side elevation of the front part of a street or tram car with my improved fender applied thereto; Fig. 2, a top plan view of the same, and Fig. 3 a top plan view of the horizontally-movable fender-frame detached.

In the drawings the reference-letter *a* designates the platform of a car, *s* the dashboard,

and *c* the controller-handle, which is arranged to work between stops in the usual way from a position where the power is fully on to a position where it is entirely off. Beneath the car-platform hangers *e'* depend, forming slide-ways for the rectangular fender-frame *f*, whose side bars *e* project rearwardly to a considerable extent beyond the rear cross-bar *d*, for a purpose hereinafter explained.

The front cross-bar *g* is preferably equipped with a rubber guard-strip *h* for riding over small projections when the fender is dropped.

It will be seen that the hangers provide for the sliding of the fender-frame and also provide for a pivotal movement of the fender up and down, the front hanger affording a fulcrum and the cross-bar *d* limiting forward movement. The latching means for maintaining the fender-frame in an elevated position are of the following description:

Journaled in suitable bearings on the under side of the car-platform is a rock-shaft *l*, carrying affixed to it at each end a depending arm, weighted arm *k* having a catch *j*. (Shown in Fig. 1 as formed upon the weighted part.) The rear ends of the fender-frame side bars *e* engage these catches, and thus the front of the fender is held normally elevated. A feeler, comprising a front bar *z* and side bars *z'*, is carried by the fender-frame, so as to slide thereon, the front bar of this feeler normally projecting beyond the front of the fender, while the rear ends of the side bars *z'* bear against the lower parts of the weighted arms *k*. It will be seen that should this front feeler-bar encounter an object or person upon the track in front of the car the consequent rearward movement of the feeler would disengage the catches *j* from the rear ends of the fender-frame side bars, and thereupon the front of the fender would drop.

The means for releasing the latching means by manipulation on the part of the motorman are of the following description: An arm *m*, affixed to the rock-shaft *l*, is connected by a rod *n* with an arm *o* on the lower end of a vertical shaft *p*, engaging suitable bearings and extending up through the car-platform and alongside the controller. At its upper end this shaft is equipped with an arm *q*, which

extends over the top of the controller into the path of the handle *c*. When the latter is moved around to shut off the current, it encounters said arm *q* and moves it rearwardly, effecting disengagement of the catches *j* from the fender-frame through the medium of the connections described. Said arm *q* is equipped with a handle, so as to be conveniently manipulative independently of the controller-handle. It will now be seen that the arrangement here shown provides either for the release of the latching means and the consequent drop of the fender automatically by an encounter with an object or person upon the track in front of an approaching car or for the release of said means by the motor-man either working the arm *q* directly or in the throwing of the controller-handle to a position where the power is cut off. Hence there is every assurance that the fender will promptly drop and prevent the object or person upon the track from getting under the car. It is to be particularly noted that the character of latching means employed provides for the sliding of the fender to and from a position under the car-platform, the relationship between the latching means and the fender being such as to permit this to be done without derangement. It is obvious that the arms *k* will swing rearwardly and upwardly when the fender is slid back and that they will resume operative position when the fender is restored to its operative position.

The basket of the fender consists of slatwork *r*, which is fastened to the front bar of the fender-frame and extends rearwardly to the car-platform, to which it is suitably connected, as clearly shown in Figs. 1 and 2, said slatwork being sufficiently flexible to double up readily when the fender-frame is slid under the car. The reference-letter *u* designates cushioning-springs, which may be mounted on the rear side of the slatwork in front of the bunter *t*.

While the particular form of means here shown as embodying the invention is admirably adapted to the purpose, yet it is to be understood that the invention is capable of embodiment in many other forms.

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

1. The combination with a car-platform and supports thereunder; of a fender pivotally engaged with said supports and slidable thereon to and from a position beneath the car-platform; latching means normally holding the front of the fender elevated; and means for releasing said latching means, substantially as described.

2. The combination with a car-platform and supports thereunder; of a fender pivotally engaged with said supports and slidable thereon to and from a position beneath the car-platform; latching means normally holding the front of the fender elevated; and a feeler

extending forwardly beyond the fender and being rearwardly movable relative thereto, said feeler engaged with the latching means, substantially as and for the purpose described.

3. The combination with a car-platform and supports thereunder; of a fender pivotally engaged with said supports and slidable thereon to and from a position beneath the car-platform; latching means normally holding the front of the fender elevated, and comprising a weighted swinging arm depending from the car-platform and having a catch; and means for releasing said latching means.

4. The combination with a car-platform and supports thereunder; of a fender pivotally engaged with said supports and slidable thereon to and from a position beneath the car-platform; latching means normally holding the front of the fender elevated, and comprising a weighted swinging arm depending from the car-platform and having a catch; and a feeler extending forwardly beyond the fender and being rearwardly movable relative thereto, said feeler engaged with the pendent arm, substantially as described.

5. A car-fender pivotally engaged with its support at the rear, a latch for holding it in raised position, and means for releasing the latch by the operation thereon of the power-controller.

6. The combination with a car-platform and supports thereunder; of a fender pivotally engaged with said supports and slidable thereon to and from a position beneath the car-platform, latching means normally holding the front of the fender elevated, and means operated by the power-controller for releasing said latching means, substantially as described.

7. A car-fender pivotally engaged with its support at the rear, a latch for holding it in raised position, and means for releasing the latch by the operation thereon of the power-controller; said means comprising a vertical rock-shaft having an arm at its upper end extending in the path of the controller-handle, and suitable connections between said shaft and the latch, substantially as described.

8. The combination with a car-platform and supports thereunder; of a fender pivotally engaged with said supports and having a rearward projection; a weighted arm having a catch to engage said projection and hold the forward part of the fender elevated; a vertical shaft extending through the car-platform and alongside the controller and having an arm at the upper end projecting into the path of the controller-handle and a crank-arm at its lower end; and a rod connecting said crank-arm with the weighted arm, substantially as and for the purpose described.

9. The combination with a car-platform and supports thereunder; of a fender pivotally engaged with said supports; a latch for holding the fender normally elevated; a feeler pro-

jecting in front of the fender and movable
relatively thereto, said feeler engaging the
latch; and means connected with the latter
and coacting with the controller, substantially
5 as described.

In testimony whereof I have signed my
name to this specification, in the presence of

two subscribing witnesses, this 7th day of
July, A. D. 1900.

MILLARD F. FIELD.

Witnesses:

F. P. DAVIS,
SETH P. SMITH.