

(No Model.)

2 Sheets—Sheet 1.

S. D. WRIGHT.
CAR FENDER.

No. 528,057.

Patented Oct. 23, 1894.

Fig 1.

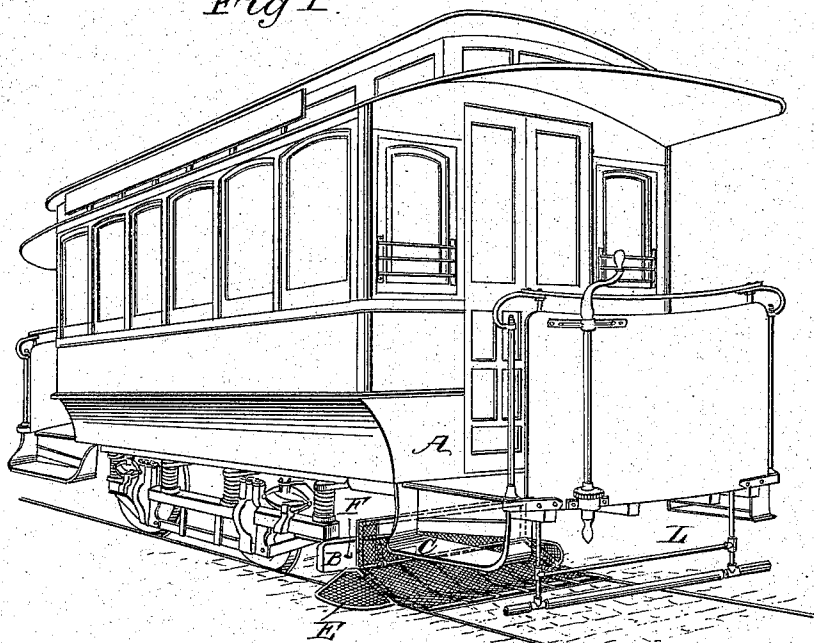


Fig 2.

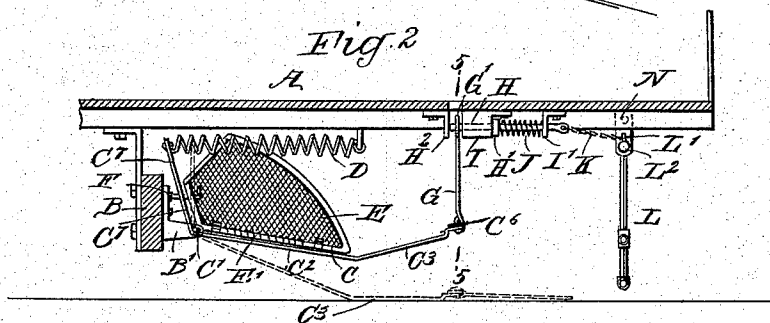
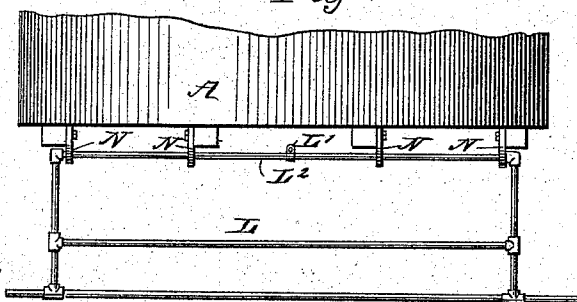


Fig 3.



WITNESSES:

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ATTORNEYS

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Fig 4

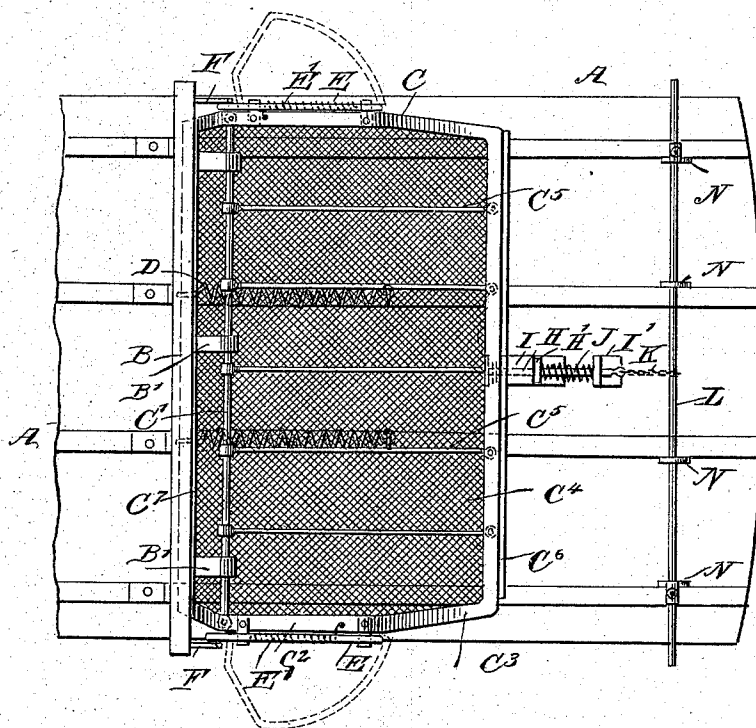
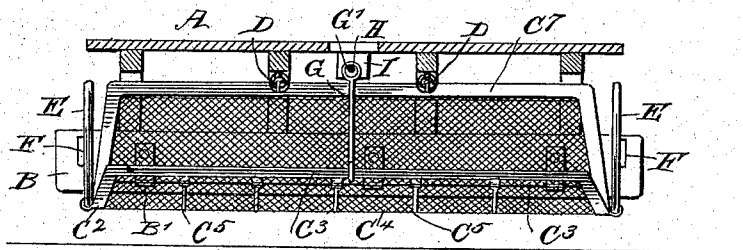


Fig 5



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UNITED STATES PATENT OFFICE.

SYLVANUS D. WRIGHT, OF NEW YORK, N. Y.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 528,057, dated October 23, 1894.

Application filed December 20, 1893. Serial No. 494,160. (No model.)

To all whom it may concern:

Be it known that I, SYLVANUS D. WRIGHT, of the city, county and State of New York, have invented a new and Improved Car-Fender, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved car fender, which is simple and durable in construction, very effective and automatic in operation, and arranged to prevent people from being run over and injured by street and other cars.

The invention consists principally of a tripping gate hung on the front end of the car, and connected with a spring-pressed screen frame to normally hold the latter in a raised position in front of the wheels, the said frame being provided with spring-pressed side wings adapted to open on the downward movement of the said spring frame.

The invention also consists of certain parts and details, and combinations of the same, as will be hereinafter described and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of the improvement as applied and with the frame and wings in a lowermost position. Fig. 2 is a sectional side elevation of the improvement as applied and with the screen frame and wings in a raised position. Fig. 3 is a front elevation of the tripping gate. Fig. 4 is an inverted plan view of the improvement as applied, and Fig. 5 is a transverse section of the same on the line 5—5 of Fig. 2.

On the under side of the platform of the car A, and directly in front of the truck is secured a transversely-extending beam B, carrying at its forward face a series of brackets B', in which is journaled a shaft C', forming part of a screen frame C, adapted to catch and hold persons falling under the car at the front end thereof. This screen frame C is provided with a metallic frame C², having its front end C³ slightly bent upward, as plainly shown in Fig. 2, so that when the screen frame C swings out of its normal raised position, downward, then the said front end C³ rests

with its side bars on the rails of the car track, as will be readily understood by reference to Fig. 1. The screen frame C² is covered by a netting C⁴ of wire, rope or other suitable material, sufficiently strong, however, to readily support the weight of a human being.

In order to securely hold the screen netting in a stretched position within the frame C², I provide a series of longitudinally-extending braces C⁵, extending from the shaft C' to the transverse bar of the frame, as plainly shown in Fig. 4. On the top surface of the front transverse bar of the frame C² is secured a strip C⁶, of rubber or other suitable flexible material, so as to shield the person when rolling onto the screen frame. The latter is provided with a rearward extension C⁷ extending upwardly and slightly rearwardly, as plainly shown in Fig. 2, so as to form a back for the screen frame. On the side bars of the frame C² are pivoted side wings E, similarly constructed to the screen frame by being provided with a strong metallic frame covered with a netting, as plainly shown in the drawings. Each wing E is pressed on by a spring E', so as to cause the wing to readily swing downward and outward at the time the said wing is released from a fixed pin F, secured in the transverse beam B near each outer end thereof.

It will be seen by reference to Figs. 2 and 5, that as long as the screen frame C is in an uppermost position the wings E stand in an approximately vertical position, and are held in this position by the pins F engaging the outer faces of the said wings. Now, when the screen frame C swings downward, the wings E move with it, and thus pass away from the supporting pins F, which permit the springs E' to impart an outward swinging motion to the wings, so that the latter swing downward and outward until the free ends of the wings come in contact with the pavement on the outside of the car track rails. See Fig. 1.

In order to facilitate the downward swinging of the screen frame C, I provide one or a series of springs D, connected at one end with the upper part of the extension C⁷ of the screen frame, with the forward ends of the said springs fastened to suitable bolts or other

means attached to the under side of the car platform. See Fig. 2. The springs D also serve to insure an easy upward movement of the screen frame in case a person rolling over the screen frame against the extension C⁷ exerts pressure against the latter with the tendency to swing the screen frame upward.

In order to hold the screen frame C normally in an uppermost position, as shown in Fig. 2, I provide the front cross bar of the frame C² with a link G, formed at its upper end with an eye G', adapted to engage a bolt H, fitted to slide longitudinally in suitable bearings I and I', secured to the under side of the car platform. A spring J, is coiled on the bolt H and rests with one end on a collar H', secured to the said bolt and at its other end against the bearing I'.

The spring J serves to hold the said bolt H in an innermost position with the extreme inner end of the bolt abutting against a stop H², directly in the rear of the bearing I, so that the eye G' of the link G cannot be accidentally displaced or become disengaged from the bolt H, unless the latter is drawn forward. The forward end of the bolt H is connected by a chain K, with a projection L' formed on the top of the transversely-extending shaft L² of a tripping gate L, hung under the platform at the front end of the car. The shaft L² is journaled in suitable bearings N, secured to the under side of the platform, the said frame being free to swing in either direction. When, however, the frame L, strikes an obstruction on the track, say a person that has fallen on the track in front of the car, then the gate L is swung rearwardly on the forward movement of the car, whereby a pull is exerted on the chain K and the bolt H so that the latter is drawn forward and out of engagement with the eye G' of the link G. The latter thus drops and thereby releases the screen frame C, so that the latter swings downward by its own weight and aided by the force of the springs D. The latter cause an instant downward movement of the screen frame, so that its front angular part C³ is positively down on the car track to pick up the person or other object that has passed the gate L.

As previously described, the screen frame C on its downward movement releases the said wings E from their stop pins F, so that the said side wings swing downward and outward onto the pavement outside of the car track, to prevent the person, or his arms or legs, from becoming entangled under the car wheels in case the said person should roll out sidewise over the respective wing. Thus, the wings serve as a shield for the person, at the same time having the tendency to move the obstruction to one side away from the car. It will be seen that by this arrangement the operator in charge of the car is not called upon to manipulate any part of the device, but is left free to attend to his duties,

in stopping the car as quick as possible after an accident has occurred. By the arrangement of the tripping gate L in front of the screen frame and the mechanism connecting the latter with the said gate, the entire car fender is rendered automatic.

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

1. A car fender, comprising a movable screen frame, means for lowering the same, and spring-pressed side wings loosely connected with the sides of the said screen frame and adapted to be unlocked on the downward movement of the screen frame, substantially as described.

2. A car fender, comprising a tripping gate hung on the front end of the car, a spring-pressed screen frame normally held in raised position and adapted to be tripped by the said gate, and spring-pressed side wings pivoted on the sides of the said screen frame and adapted to be unlocked on the downward swinging of the screen frame, substantially as shown and described.

3. A car fender, comprising a tripping gate hung on the front end of the car, a spring-pressed screen frame normally held in raised position and adapted to be tripped by the said gate, spring-pressed side wings pivoted on the sides of the said screen frame and adapted to be unlocked on the downward swinging of the screen frame, and fixed pins for holding the said side wings normally in a vertical position, substantially as shown and described.

4. A car fender, comprising a pivoted spring-pressed screen frame whose main portion extends forward from its pivot, means secured to the front end of the screen frame for holding the same suspended in a raised position, a sliding bolt adapted to engage and hold the upper end of the said suspending means, and a tripping mechanism having an operative connection with the said bolt to withdraw it from engagement with the said suspending means and thereby release the screen frame, substantially as described.

5. A car fender, comprising a pivoted screen frame having an extension forming a back, a spring held on the car and connected with the said extension, to instantly cause the said screen frame to swing downward when released and to offer resistance to the screen frame when pressed on at the said extension by the object passing onto the screen frame, side wings pivoted on the side bars of the said screen frame, springs pressing on the said wings, and fixed pins for normally holding the said side wings in an uppermost position, substantially as shown and described.

6. A car fender, comprising a pivoted screen frame having an extension forming a back, a spring held on the car and connected with the said extension, to instantly cause the said screen frame to swing downward when re-

leased and to offer resistance to the screen
frame when pressed on at the said extension
by the object passing onto the screen frame,
a link held on the free end of the said screen
5 frame, a bolt engaging the said link, and a
gate hung on the front end of the car and
connected with the said bolt, so that on the
rearward movement of the gate, the bolt is
withdrawn to release the said link and to trip
the screen frame, substantially as shown and so
described.

SYLVANUS D. WRIGHT.

Witnesses:

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