

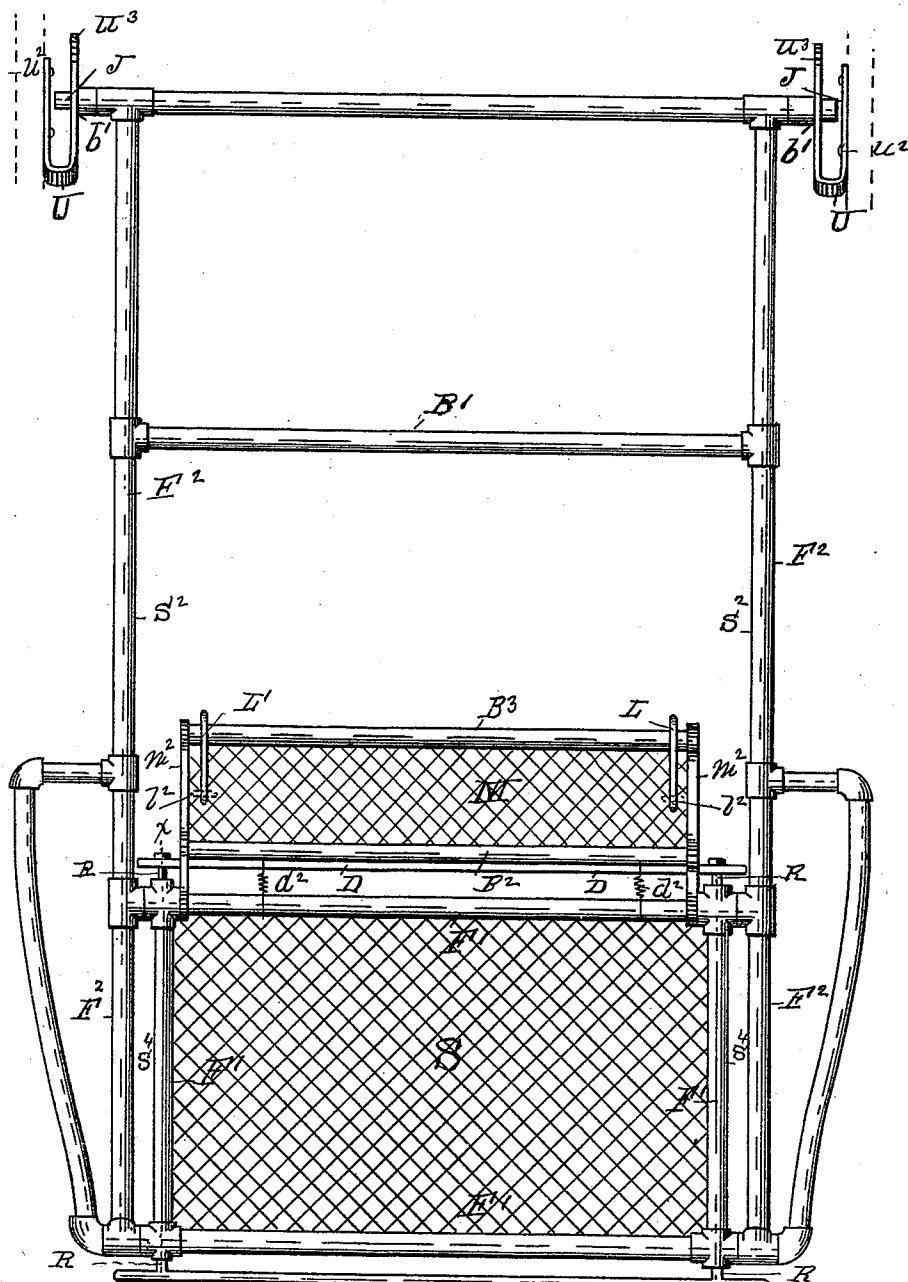
(No Model.)

3 Sheets—Sheet 1.

C. P. STIMPSON.
CAR FENDER.

No. 536,708.

Patented Apr. 2, 1895.



WITNESSES

Wm. S. Garrison.

Charles S. Buntzall

FIG 1

INVENTOR

Charles P. Stimpson
by W. C. Hagan atty

(No Model.)

3 Sheets—Sheet 2.

C. P. STIMPSON.
CAR FENDER.

No. 536,708.

Patented Apr. 2, 1895.

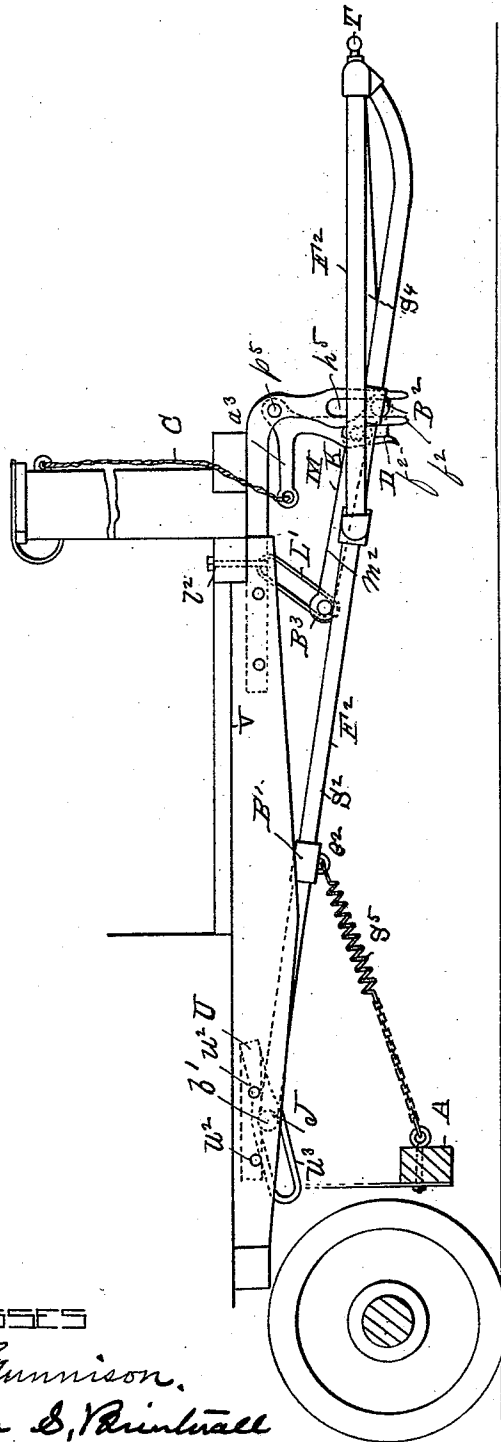


FIG 2

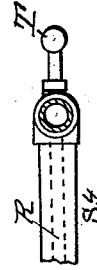
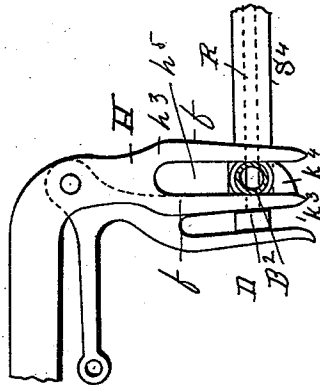


FIG 4



WITNESSES

Wm S. Gunnison.

Charles S. Rintwell

INVENTOR
Charles P. Stimpson,
by W. C. Hagan atty

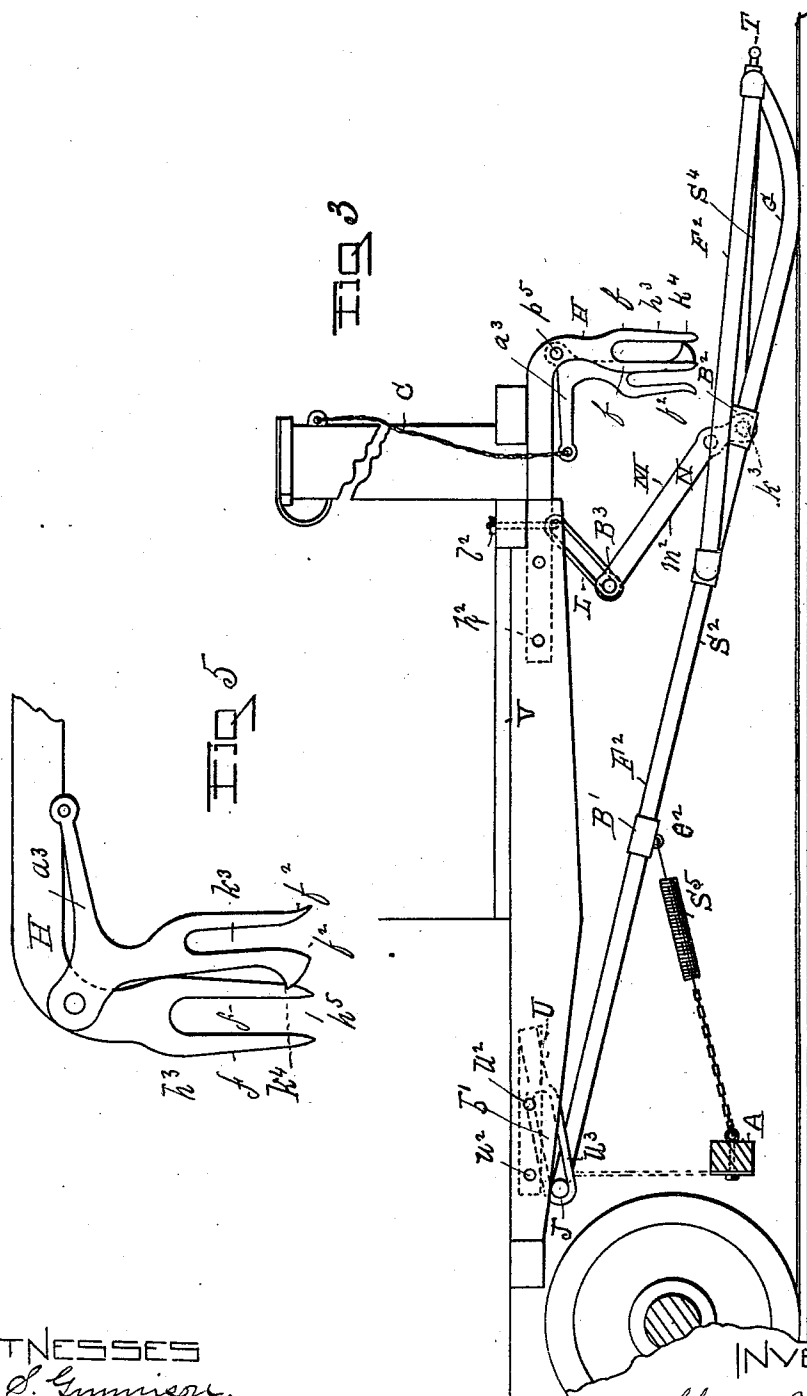
(No Model.)

3 Sheets—Sheet 3.

C. P. STIMPSON.
CAR FENDER.

No. 536,708.

Patented Apr. 2, 1895.



WITNESSES

Wm. S. Garrison.

Charles S. Brintnell

INVENTOR

Charles P. Stimpson
by Wm. Hagan atty.

UNITED STATES PATENT OFFICE.

CHARLES P. STIMPSON, OF TROY, ASSIGNOR OF ONE-HALF TO PHEBE R. GUNNISON, OF LANSINGBURG, NEW YORK.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 536,708, dated April 2, 1895.

Application filed November 7, 1894. Serial No. 528,136. (No model.)

To all whom it may concern:

Be it known that I, CHARLES P. STIMPSON, of the city of Troy, county of Rensselaer, and State of New York, have invented a new and useful Improvement in Car Guards or Fenders, of which the following is a specification.

My invention relates to that class of devices which are placed at the ends of motor and other cars to protect persons falling in front of, or when struck by the cars from being run over and injured by the latter.

The object and purpose of my invention is to better adapt this class of devices to the uses for which they are designed, and to have them operate automatically, or to be actuated by the motor man.

This apparatus consists essentially of a main frame preferably made from gas-pipe, which at its inner rear end is hinged to the car truck on which connection it can be swung up and down, and be moved rearwardly, and at its front end provided with a screen, with the main frame adapted to be raised from the track and held as raised until tripped by the motor man or by coming in contact with the body of a person upon the track.

Accompanying this specification to form a part of it there are three plates of drawings containing five figures illustrating my invention, with the same designation of parts by letter reference used in all of them.

Of the illustrations, Figure 1 is a top view of the apparatus and its inner-end connection with the car truck. Fig. 2 is a side elevation of the apparatus and its attachment to the car, with the outer end of the apparatus shown as raised, and held by means of the keeper-hook and finger-form holder. Fig. 3 is another side elevation of the apparatus with the latter shown as tripped from the keeper-hook and finger-form holder, and with its outer end down, and as resting on the track. Fig. 4 is a section taken on the line x, x , of Fig. 1. Fig. 5 is a side elevation of the keeper-hook and finger-form holder, shown as detached.

These several parts of the apparatus thus illustrated are designated by letter reference and the function of the parts is described as follows:

The letter S designates a wire screen formed in a frame F' , which at its sides connects with

the sides of the main-frame F^2 , and G, G, designate guards of which there is one extended laterally from each of the sides of the main-frame F^2 . This main-frame at its upper ends is provided with journals J, J, each of which latter having a slotted bearing b' , in which it may slide forwardly or rearwardly as well as to turn therein.

The letter B' designates a cross-bar or brace connecting the sides S^2 , of the main frame, for stiffening the latter.

The letters U, U, designate U-form plates, of which there is one at each side of the car, the outer side of each of these plates being at w^2 , attached to the track side, and the inner arm w^3 , of each of which plates is carried downwardly on an angle as extended rearwardly, and there is formed in each of these arms, so constructed, the before named slotted bearings b' .

The letters L', L', designate links of which there is one at each side of the car, each of which links at its upper end connects to the car bottom V by means of a staple l^2 , and at its lower end journals onto the bar B^3 .

The letter M designates an additional screen which is placed in the rear of and back of the screen S. The sides m^2 , of this screen, journal at their upper ends on the bar B^3 , outside of the links L', and at their lower ends with the bar B^3 , and this additional screen is to prevent the passage of a body falling on the screen S, from passing rearwardly from off the latter; the screen M, when the frame descends presenting an inclined surface N, extending downwardly to the screen S.

The letter T designates the tripping bar, which is placed in advance of the screen frame F; and the letters R, R, designate two rods, which at their front ends connect with the tripping bar T, and therefrom they are each extended rearwardly to pass through one of the tube-form sides S^4 , S^4 , of the screen frame F' .

The letter D designates a cross-bar with which each of the rods R connects at the inner ends of the latter, and as shown at Fig. 1.

The letters H designate a finger-bar which at its upper end is at h^2 , connected to the under-side of the car platform, and from which it has a depending end h^3 , made with the fin-

gers f, f , between which there is formed the slot h^5 , which is open at the bottom, and therefrom extended upwardly. As thus made, when the main-frame F^2 , and screen S , are raised to be in the position shown at Fig. 1, the cross-bar B^2 , will enter the slot h^5 .

The letter K designates a keeper hook, which at its upper end is pivoted at p^5 , to the finger bar H , so as to be at one side of the latter, and this hook is made with a tripping lever arm a^3 , from which there runs a chain C , which at its upper end is secured to the front of the dashboard, where it is within reach of the motor man. The lower end of this hook is made with fingers f^2, f^2 , and an intermediate slot k^3 , adapted to receive the bar D , which is by means of the rods R , connected with the tripping-bar T .

The letter k^4 designates the hook proper, which is formed on the outer side of one of the fingers f^2 , and where it can under-run so as to engage with, and hold up the bar B^2 , when within the slot h^5 , of the finger-bar H .

The letters d^2 , designate springs which at one of their ends connect with the bar D , and at their other end each of them connects with the inner side of the screen frame; and the function of these springs is to keep the tripping bar extended forwardly beyond the screen, and when moved rearwardly, to be so moved against the force of these springs.

The letters S^5, S^5 , designate spiral springs, of which there is one at each side of the frame. Each of these springs connects at e^2 , with one of the sides S^2 , of the main frame, and at its other end with the brake beam A . As thus constructed, when emergency does not require the descent of the main frame and screen, they are raised, with the bar B^2 , within the slot h^5 , of the finger-bar H , and the bar D , within the slot k^3 , with the hook-proper under-running the bar B^2 , thus holding the parts as raised; but when the tripping-bar T , comes in contact with an object, it by means of its connection with the bar D , moves the latter rearwardly, and also the hook proper, to release its hold on the bar B^2 , allowing the frame to fall at the front, and to run back on its journals J , with its outer front end upon the ground, adapted to under-run and transfer to the screen the body of a person who has fallen, and when operated by the motor-man, by pulling on the chain C , the same effect is produced.

With the parts thus constructed and arranged when the main frame is tripped either by its tripping bar T , and its coming in contact with the body of a person upon the track, or by the motor-man operating the chain C , the main frame is rapidly drawn rearwardly by the action of the springs S^5, S^5 , with its journals J, J , sliding in the slotted bearings, thus operating by direction of movement oppositely to that in which the car is moving, and thus giving time for the outer end of the frame to reach the track before under-running, so as to pick up, and transfer to the

screen an object upon the track. This feature of construction and arrangement constitutes an important feature of difference between my apparatus and older devices used for like purposes. In these older devices, the body of a person having fallen upon, or tripped up on the track, receives the full force of the car momentum, and often the fallen body takes such a position that the frame or screen will over-run instead of under-run the object upon the track. By the use of my improvement the drawing back of the frame and screen admits of the very positive descent of the screen to the track, and makes the action of the apparatus reliable.

While I have shown slotted bearings as employed to admit of the rearward motion of the frame when operated to descend, I do not limit my invention to the precise means which I illustrate and describe to accomplish this function, but do limit myself to the use of such a means as will perform in like manner the same function.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a car-guard or fender the combination with a frame provided with a screen at its front end, and having journals upon its rear end; of horizontally slotted bearings for said journals wherein the frame may swing up at its front end to be latched; and springs whereby said frame and screen may be drawn rearwardly when unlatched and to descend at the front, substantially in the manner as and for the purposes set forth.

2. In a car-guard or fender the combination with a frame provided with a screen at its front end, and having journals upon its rear end—of horizontally slotted bearings for said journals, wherein the frame may swing up at its front end to be latched; springs whereby said frame may be drawn rearwardly when unlatched, and to descend at the front; and a tripping-bar mounted on slides in said frame and arranged in advance of its front end, whereby when coming in contact with an object said tripping-bar will move rearwardly to unlatch the frame substantially in the manner as and for the purposes set forth.

3. In a car-guard having a frame which is provided with a screen at its front end, and at its rear end with journals on which its front end may be raised or depressed; of a finger-form holder pendent from the car bottom, which holder is slotted upwardly from its lower end, and adapted to receive a cross-bar of the frame when the latter is raised; a keeper hook pivoted at its upper end, and where projected downwardly, adapted to receive a holder-bar when the frame is raised, and having a hook proper upon one of its sides adapted to under-run and hold the frame cross-bar when within the holder slot; and a tripping bar arranged in advance of the screen, and connected with the holder-bar by means of rods passing through the screen—

frame sides to connect with the holder-bar, whereby as said tripping bar comes in contact with an object, the holder-bar will be moved rearwardly to trip the keeper-hook and allow the frame to descend on the track, substantially in the manner as and for the purposes set forth.

4. The combination of the frame F^2 , made with the screen S , cross-bars B' and B^2 , and journals J, J , of the slotted bearings b', b' , attached to the car truck; the springs S^5, S^5 connected with said frame and the brake beams; the finger-form holder H , having the slot h^5 ; the keeper hook K , pivoted at p^5 , having the lever arm a^3 , operating chain C , slot

k^3 , and hook proper k^4 ; and the tripping-bar T , having rods R, R , passing through the sides of the screen frame and the bar D , connecting with the inner end of the rods R , constructed and arranged to be operated substantially in the manner as and for the purposes set forth.

Signed at Troy, New York, this 5th day of November, 1894, and in the presence of the two witnesses whose names are hereto written.

CHAS. P. STIMPSON.

Witnesses:

CHARLES S. BRINTNALL,
W. E. HOGAN.