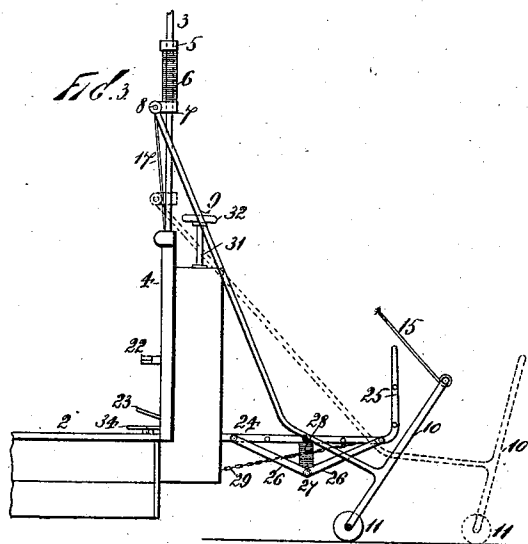
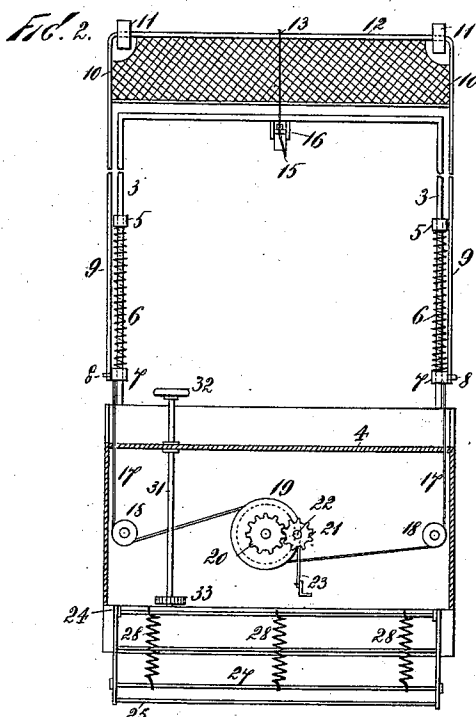
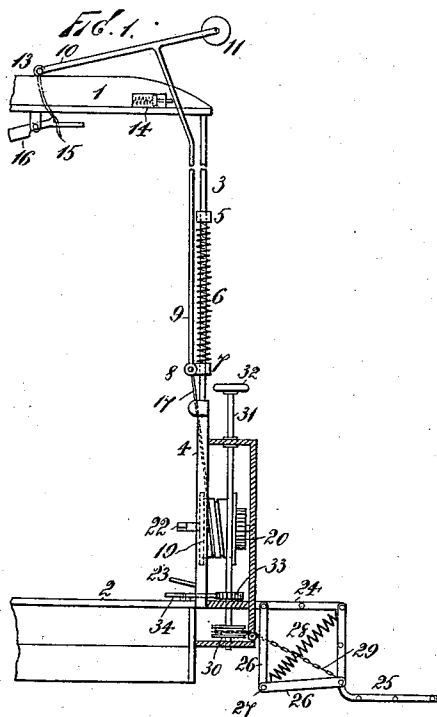


(No Model.)

H. BRANDT.
CAR FENDER.

No. 548,906.

Patented Oct. 29, 1895.



Witnesses:
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UNITED STATES PATENT OFFICE.

HENRY BRANDT, OF BROOKLYN, NEW YORK.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 548,906, dated October 29, 1895.

Application filed April 25, 1895. Serial No. 547,087. (No model.)

To all whom it may concern:

Be it known that I, HENRY BRANDT, a citizen of the United States, residing in Brooklyn, Kings county, State of New York, have invented a new and useful Improvement in Car-Fenders, of which the following is a specification.

My invention relates especially to devices employed upon street-cars, particularly such as are driven by electricity and cable, for the purpose of preventing injury to persons who may be struck by the moving car, and has for its object the provision of a fender arranged to catch, elevate, and hold a body out of harm's way if struck by an advancing car wherewith my fender is employed.

To attain the desired end my invention consists, essentially, in a fender proper hinged to a horizontal support at the front of a car, said hinged portion being provided with means for automatically raising it to the level of the horizontal portion, and in the combination, with the fender proper, of a frame provided with a net, or the equivalent, adapted to be thrown beyond the body of the person struck and then automatically draw such body onto the fender proper; and my invention also involves certain other novel and useful combinations or arrangements of parts and peculiarities of construction and operation, all of which will be hereinafter first fully described, and then pointed out in the claims.

In the accompanying drawings, forming a part hereof, Figure 1 is a side elevation of my car-fender. Fig. 2 is a front elevation of the same. Fig. 3 is a side elevation illustrating the operation of the device.

Like numerals of reference, wherever they occur, indicate corresponding parts in all the figures.

1 is the top of a car and 2 the platform thereof, constructed in the usual manner, as my invention is designed for application to any existing form of car.

3 are the upright rods leading from the dash-board 4 to the top of the car at each side. Fixed to the rods 3 are collars 5, to which are secured powerful springs 6, which encircle the rods 3. The lower ends of the springs 6 engage with vertically-movable collars 7, also mounted upon the rods 3. Each collar 7 is provided with an eye 8, to which is

pivoted a rod 9. These rods 9 pass upward and engage with a frame 10, bearing rubber-wheels 11 at each side, and also carrying a net 12, made of any suitable material.

In practice it would be well to cover the front rod 13 of the frame 10 with rubber, as well as the front rod of the fender proper, so as to prevent injury to the person by being struck by the metal. The rods 9 bear against springs 14, fixed at the top of the car, when the parts are in the position indicated in Fig. 1.

Secured to the rod 13 of the frame 10 is a rope 15, which passes through the roof of the car and is normally locked against movement by any suitable catch, such as 16, within reach of the motorman.

Connected to the collars 7 are cords or chains 17 passing down at the front of the dashboard around pulleys 18 to a drum 19. The shaft of this drum is provided with a gear-wheel 20, the teeth whereof mesh with a gear-wheel 21, mounted upon a shaft projecting through the dashboard, and arranged to receive a crank for operating the drum.

23 is a stop which holds the gear 21 locked in place, and which projects in such a manner as to be readily operated by the foot of the motorman.

24 is the horizontal portion of the fender proper fixed to the front of the car. Hinged thereto is a right-angular portion 25, forming a step-like projection when the parts are in the position shown in Figs. 1 and 2. At the rear of the part 25 are pivoted bars 26, connected by a rod 27. Extending from this rod 27 to the front bar of the fixed portion 24 of the fender are powerful springs 28. The parts 24 and 25 may be made of any approved material and covered with a net, if desired.

Passing from the hinged portion 25 of the fender is a chain or cord 29, secured to a drum 30, mounted upon a vertical shaft 31, bearing an operating hand-wheel 32, and a ratchet-wheel 33, controlled by a pawl 34, pivoted upon the platform 2. I have illustrated a chain passing around a drum in the drawings, but, if desired, a rack-bar and pinions may be substituted therefor without departing from the spirit of my invention.

When constructed and arranged in accordance with the foregoing description, the oper-

ation of my device is as follows: The parts are all in the position illustrated in Fig. 1. Now, if the motorman sees that he is about to strike a person, the moment the part 25 of the fender reaches such person he touches the stop 16, releasing the cord 15, and through the medium of the springs 14 the net-frame 10 is thrown forward and downward, passing beyond the person in front of the fender, occupying the position indicated in Fig. 3 by the dotted lines, the wheels 11 resting upon the rails. Then by releasing the drum 19 through the medium of the stop 23 the springs 6 draw the rods 9 upward, as shown in the full lines in Fig. 3, pulling the person onto the part 25 of the fender. By now releasing the drum 30 held by the ratchet 34 the springs 28 force the part 25 of the fender upward, as shown in Fig. 3, and the person is held upon the raised fender in a secure and safe position until the car stops.

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

- 25 1. The combination with a car fender, of a frame bearing a net, pivoted at the side of the car, and arranged to pass over beyond the fender, and be supported upon the track or ground, substantially as shown and described.
- 30 2. The combination with a car fender, of a frame arranged to pass over and beyond the fender, and means for drawing the said frame inwardly, substantially as shown and described.
- 35 3. The combination with a car fender, of a

frame pivoted upon movable collars mounted upon rods at the side of the car front; means for holding said frame in an elevated position, throwing it forward and beyond the fender, and drawing it inward toward the fender, substantially as shown and described.

4. In a car fender, a fixed horizontal portion projecting from the car platform; a depending step-shaped portion pivoted to the front thereof; braces pivoted to the horizontal portion and to the step-shaped portion, and means for automatically raising the step-shaped portion, the whole combined, substantially as shown and described.

5. A car fender in which is comprised a horizontal, fixed portion projecting from the front of the car; a step-shaped portion pivoted thereto; springs arranged to automatically elevate the step-shaped portion, and means for retracting and holding said springs from operating, in combination with a frame arranged to pass over and beyond the fender, and means for drawing the said frame inwardly, substantially as shown and described.

6. In a device of the character herein specified, the combination with the frame having arms pivoted to movable collars engaging with springs, as set forth, of connections between said collars and a drum whereby the springs may be held extended, or released, substantially as shown and described.

HENRY BRANDT.

Witnesses:

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