

(No Model.)

J. A. SHANK.
CAR FENDER.

2 Sheets—Sheet 1.

No. 544,750.

Patented Aug. 20, 1895.

Fig. 1.

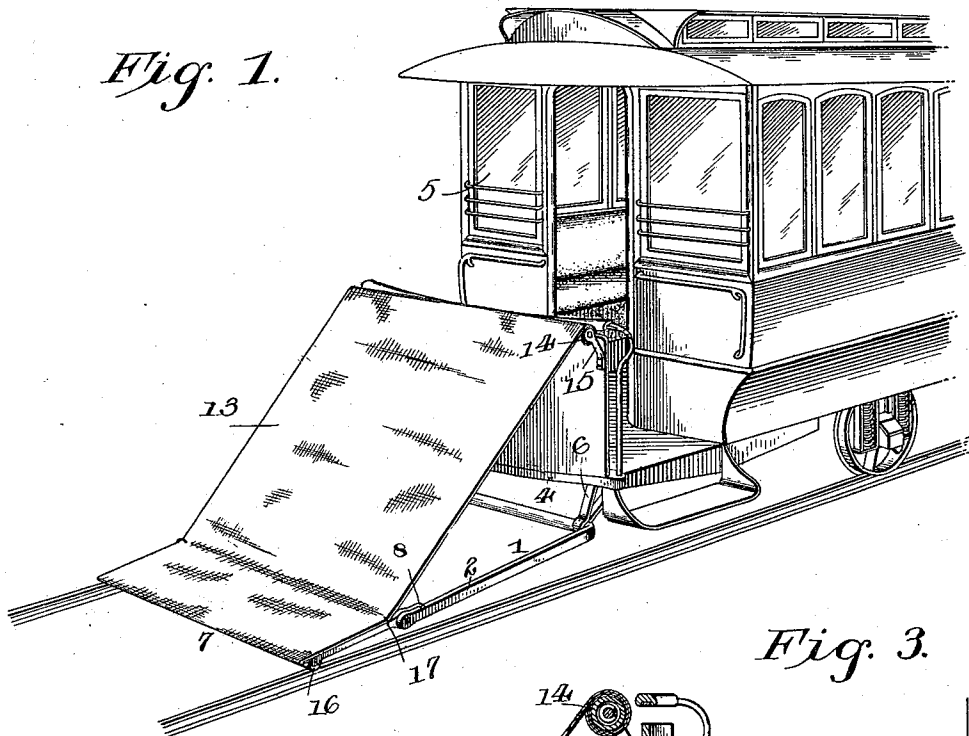


Fig. 3.

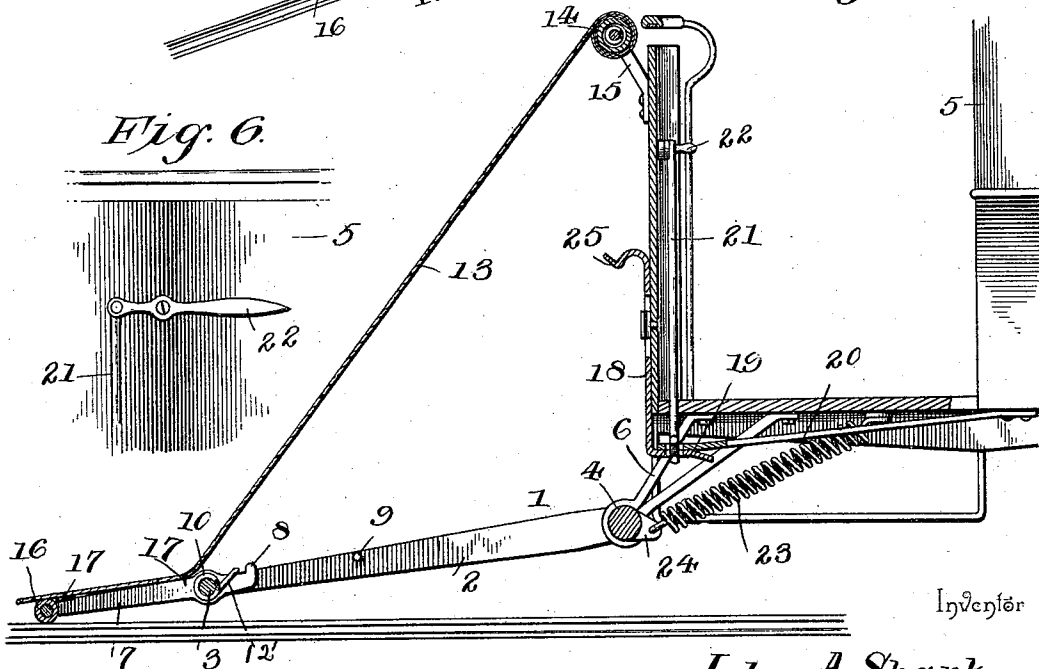
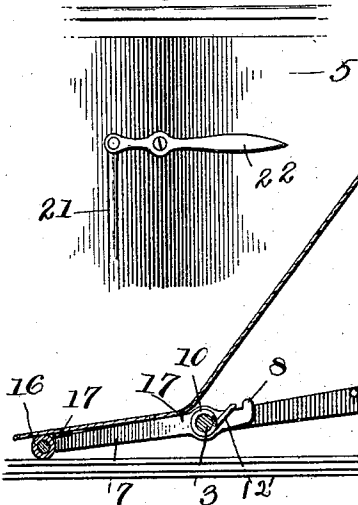


Fig. 6.



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J. A. SHANK.
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2 Sheets—Sheet 2.

No. 544,750.

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Fig. 2.

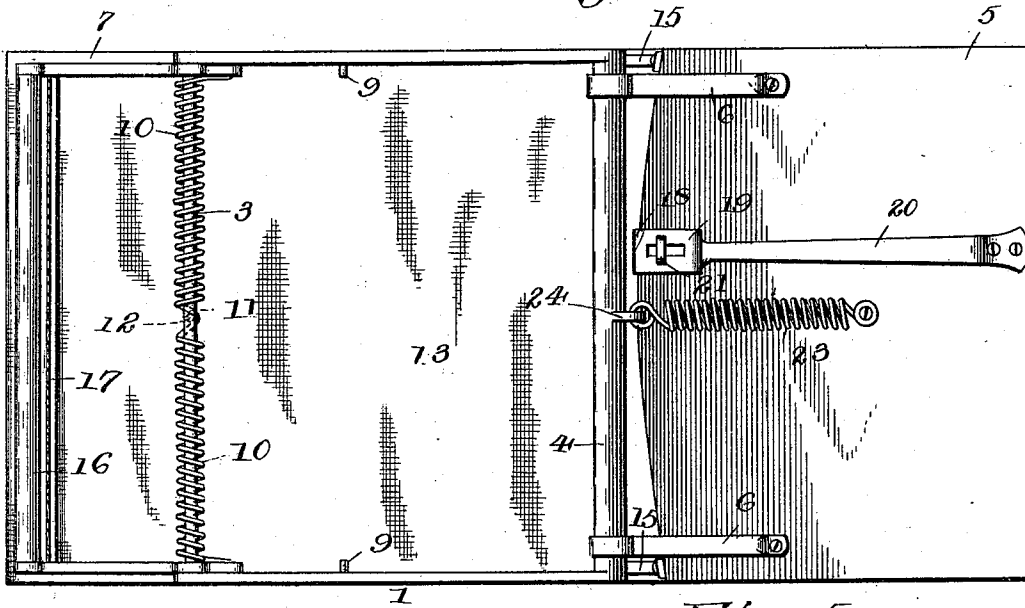


Fig. 4.

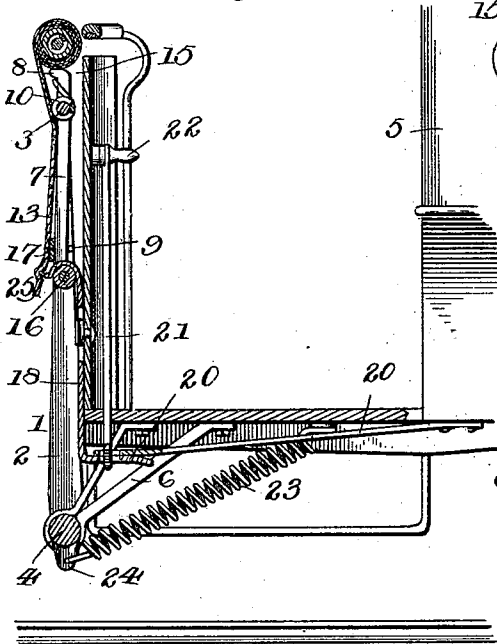
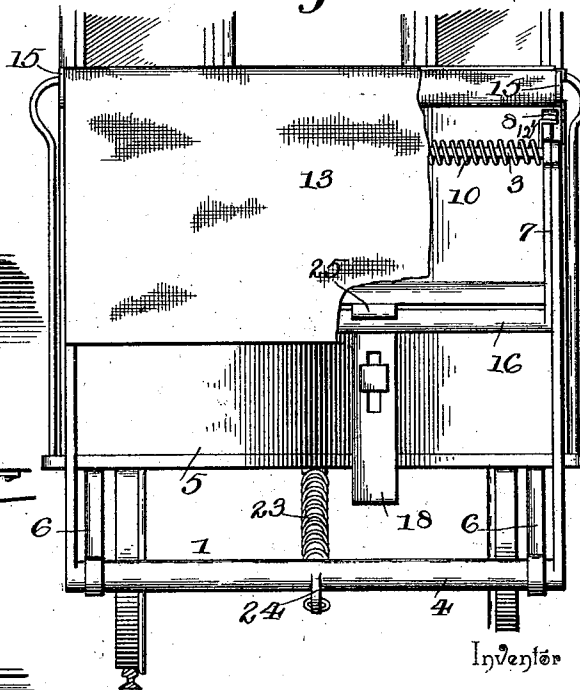


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOHN A. SHANK, OF LANCASTER, PENNSYLVANIA, ASSIGNOR OF ONE-HALF
TO HENRY R. WOLPERT, OF SAME PLACE.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 544,750, dated August 20, 1895.

Application filed June 21, 1895. Serial No. 553,569. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. SHANK, a citizen of the United States, residing at Lancaster, in the county of Lancaster and State of Pennsylvania, have invented a new and useful Car-Fender, of which the following is a specification.

The invention relates to improvements in car-fenders.

10 The object of the present invention is to improve the construction of car-fenders, and to provide a simple and inexpensive one, which will be readily applied to cable, electric, and other street-railway cars, and which, while extending the necessary distance in advance of a car, to prevent a person coming in contact with the latter, may be compactly folded against the dash without obstructing the view of the motorman.

20 A further object of the invention is to provide a car-fender which may be rapidly brought from its folded to its operative position to enable the fender to be normally folded so as not to interfere with its use on narrow streets, especially at curves.

25 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

30 In the drawings, Figure 1 is a perspective view of a car-fender constructed in accordance with this invention and shown applied to a car and arranged in operative position. Fig. 2 is a reverse plan view of the same. Fig. 3 is a central longitudinal sectional view. Fig. 4 is a similar view, the car-fender being folded. Fig. 5 is a front elevation of the same, the fabric apron or covering being broken away to show the arrangement of the parts of the fender. Fig. 6 is a detail view of the catch-operating lever.

35 Like numerals of reference designate corresponding parts in all the figures of the drawings.

45 1 designates a substantially-rectangular frame, constructed of any suitable material, preferably metal, and composed of similar sides 2 and front and rear cross-bars 3 and 4, and it is hinged at one end of a car 5 by means of suitable bearing-brackets 6 de-

pending from the car and preferably located adjacent to the sides thereof. The frame 1 is adapted to fold up against the dashboard of the car when the car-fender is not in use, and it has hinged to its front end an auxiliary frame or extension 7, which is spring-supported when the car-fender is in operative position, and which is spring-actuated when the car-fender is being thrown downward from its folded position. The supplemental frame or extension has its sides pivoted near their rear ends on the front cross-bar 3 of the main frame 1, and the sides of the extension or supplemental frame project rearwardly from the front cross-bar and are provided with laterally-disposed lugs 8, which bear against the upper edges or faces of the sides 2 when the car-fender is in operative position, and which prevent the supplemental frame or extension from swinging upward independently of the main frame beyond its position in alignment therewith. The extension or supplemental frame is adapted to swing downward and rearward to fold beneath or within the main frame against stops 9, which prevent the extension or supplemental frame from swinging through the main frame.

50 A spring 10 is spirally coiled around the front transverse bar 3, and is composed of two oppositely-coiled portions, and is provided with a central loop 11 to engage a lug or projection 12' of the front cross-bar 3; and its terminals 12 engage the rearwardly-projecting portions of the sides of the extension or supplemental frame 7. The spring operates to hold the extension or supplemental frame in alignment with the main frame, and it permits the supplemental frame or extension to fold as aforesaid.

55 A fabric covering or apron 13 is attached at one end to the front of the supplemental frame or extension 7, and its other end is connected to a roller 14, mounted on the front of the car at the top of the dash and disposed transversely thereof, and adapted to have the apron or covering 13 wound around it to take up all slack when the car-fender is folded. A roller 14, which is journaled in suitable bearing brackets or supports 15, is preferably spring-actuated, as illustrated in the accompanying drawings, in order to be automatic

in its operation; but the rotation of the roller to wind up the apron or covering may be accomplished by other means or by hand.

The main frame 1 is swung upward against the dash in folding the car-fender, and the extension or supplemental frame 7 is swung downward on the front cross-bar 3 to shorten the bottom support of the apron, as clearly illustrated in Figs. 4 and 5 of the accompanying drawings, and the spring-actuated roller automatically winds up the fabric covering or apron 13 as the frames 1 and 7 are being folded.

A transverse roller 16 is journaled on the extension or supplemental frame 7 at the front thereof to permit the fender to move readily over a road-bed and prevent it from being injured by any obstructions or any inequalities thereof, and the apron or covering 13, which may be of any suitable material—such as canvas, netting, or the like—extends over the transverse bottom roller and is adapted to slide readily under a person to prevent him from coming in contact with the car.

The supporting-frames lie close to the road-bed and are adapted to rise over any slight inequality in the same, and the parts are constructed with sufficient play to permit one side to lie close to the track when the other side is slightly raised to pass over an obstruction. The apron is connected with the extension-frame 7 at 17, and the spring of the upper roller 14 is adapted to serve as a cushion for the apron or covering to break the fall of a person.

The framework or support at the bottom of the car-fender is constructed of two sections, a main portion and a supplemental portion or extension, to extend the fender a sufficient distance in advance of the car to make it effective and to enable it when folded not to extend above the dash of the car, so as not to obstruct the view of the motorman. This adapts a fender of this size for use on narrow streets, as it may be folded up before passing around a curve or turning a corner to avoid coming in contact with curbstones or the like.

The car-fender is maintained in its folded position against the dashboard of the car by means of a vertically-movable catch 18, mounted on the front of the dash, and provided at its top with a hook-shaped portion to receive and engage the bottom roller 16. The catch extends downward below the bottom or platform of the car and is provided with an inwardly or rearwardly disposed arm 19, which is engaged by a spring 20, and to which is connected a rod 21, and the latter extends upward through an opening in the bottom or platform of the car to an operating-lever 22, which is fulcrumed on the dashboard within easy reach of the motorman; but any other suitable operating mechanism, such as a treadle or the like, may be provided for lifting the catch to release the car-fender. As soon as the catch is released the spiral spring which is disposed on the front cross-bar 3

operates to swing the supplemental frame or front section in alignment with the main frame or rear section, and the latter is swung downward by a spring 23, which is connected with the car, and with an arm 24 of the rear cross-bar of the main frame or section. The catch is provided at its top, at the outer end of the hook-shaped portion, with an upwardly and outwardly inclined lip 25, adapted in folding the fender to be engaged by the bottom roller, whereby the catch is automatically raised and caused to engage the roller 16.

It will be seen that the car-fender is exceedingly simple and inexpensive in construction, that it is positive and reliable in operation, and that it enables the apron or covering to be extended a sufficient distance in advance of a car to be effective, and to be folded when not in use so as not to obstruct the view of the motorman. It will also be apparent that the car-fender can with safety be carried normally in a folded condition, as the springs operate to unfold the parts with great rapidity and to swing them downward into proper position for catching a person.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention, such as varying the form of the catch or altering the construction or the material of which the frames are constructed and the like.

What I claim is—

1. In a car fender, the combination with a car, of a frame hinged to the same at the bottom thereof, and extending in advance of the same, and adapted to fold upward against the front of the car, an extension frame or section connected to the hinged frame and forming a continuation thereof and arranged to fold on the same, a transverse roller mounted on the car and located adjacent to the top of the dash, and an apron connected with the front of the supplemental frame or extension, and with the roller, and arranged to be wound around the latter when the car fender is folded, substantially as, and for the purpose described.

2. In a car fender, the combination with a car, of a main frame hinged to the car at the bottom thereof and extending outward therefrom and adapted to fold upward against the front of the car, a spring connected with the main frame and the car and adapted to swing the former downward and to hold the same in operative position, a spring actuated and supported extension hinged to the front of the main frame and arranged to fold thereon, a transverse roller mounted on the car and located above said frames, and an apron or covering connected with the supplemental frame and with said roller and adapted to be wound thereon when the car fender is folded, substantially as described.

3. In a car fender, the combination with a car, of a hinged frame connected with the car

and extending outward therefrom, a supplemental frame or extension hinged to said frame, a spring-actuated roller mounted on the car and arranged transversely thereof, an
5 apron or covering connected with the supplemental frame or extension and with the roller and adapted to be wound thereon, and springs connected with said frames for holding them in operative position, substantially as de-
10 scribed.

4. In a car fender, the combination with a car, of a main frame hinged to the car and extending forward therefrom, and adapted to swing upward against the car, an auxiliary
15 frame or extension hinged to the main frame, springs for holding said frames normally in position, an apron connected with the front of the auxiliary frame or extension and with the car, a catch mounted on the car and ar-
20 ranged to engage the front of the auxiliary frame or extension when the parts are folded, and means for operating the catch, substantially as described.

5. In a car fender, the combination with a
25 car, of a hinged main frame carried by the car, an extension hinged to the main frame,

an apron connected with the car and the front of the extension, a spring-actuated catch mounted on the front of the car and having a hook-shaped portion for engaging said exten- 30
sion and provided with an inclined lip to enable the catch to be automatically engaged, and means for operating the catch to release the fender, substantially as described.

6. In a car fender, the combination with a 35
car, of a main frame hinged to the car, and provided at opposite sides with stops, an extension hinged to the front of the main frame, and provided with rearwardly disposed lugs engaging the main frame and limiting the 40
swing of the extension, springs connected with the main frame and the extension for holding them in operative position, and an apron connected with the extension and with the car, substantially as described. 45

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN A. SHANK.

Witnesses:

JOHN H. SIGGERS,
HAROLD H. SIMMS.