

(No Model.)

3 Sheets—Sheet 1.

G. E. SHOEMAKER.
CAR FENDER AND WHEEL GUARD.

No. 544,195.

Patented Aug. 6, 1895.

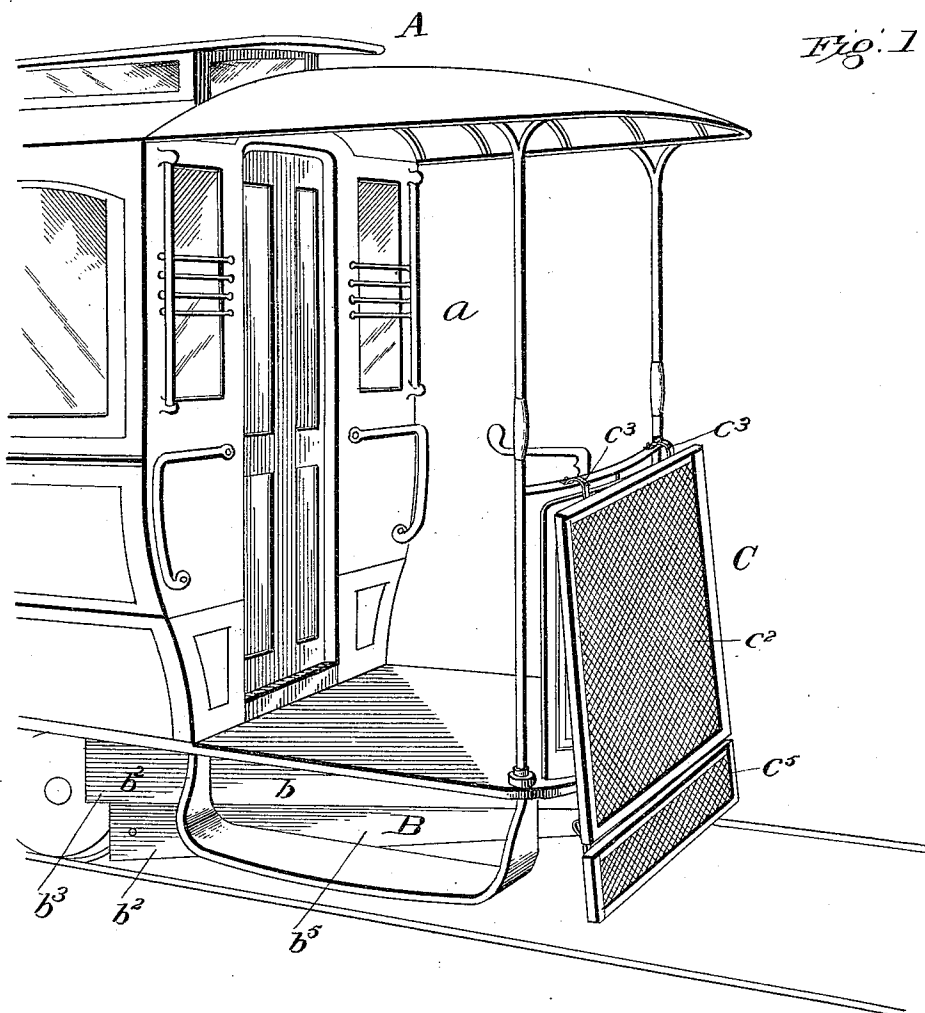
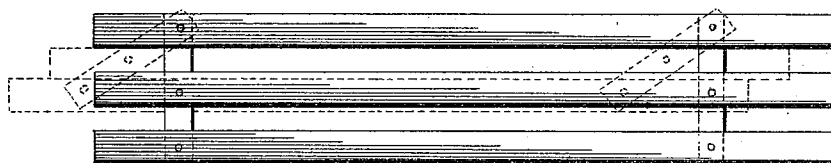


Fig. 4.



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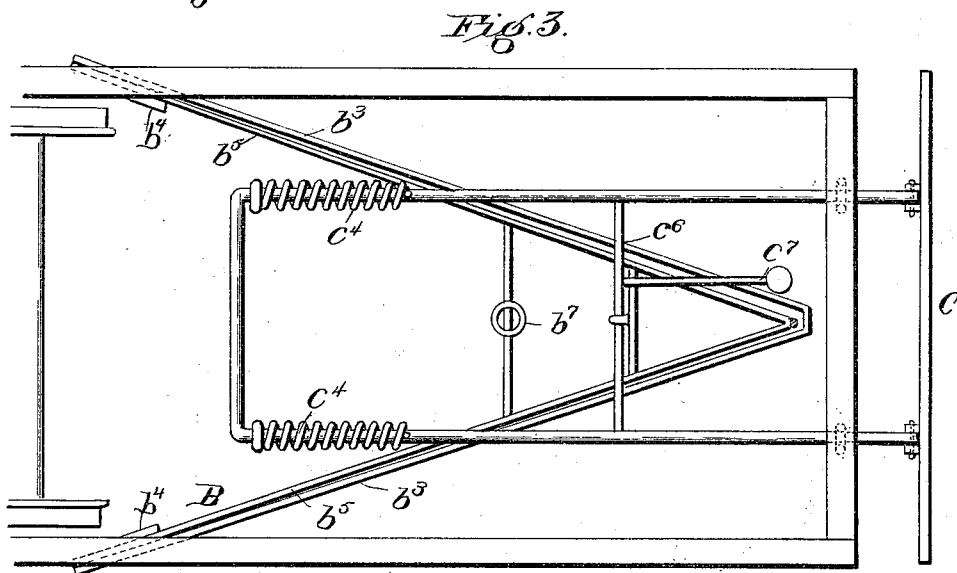
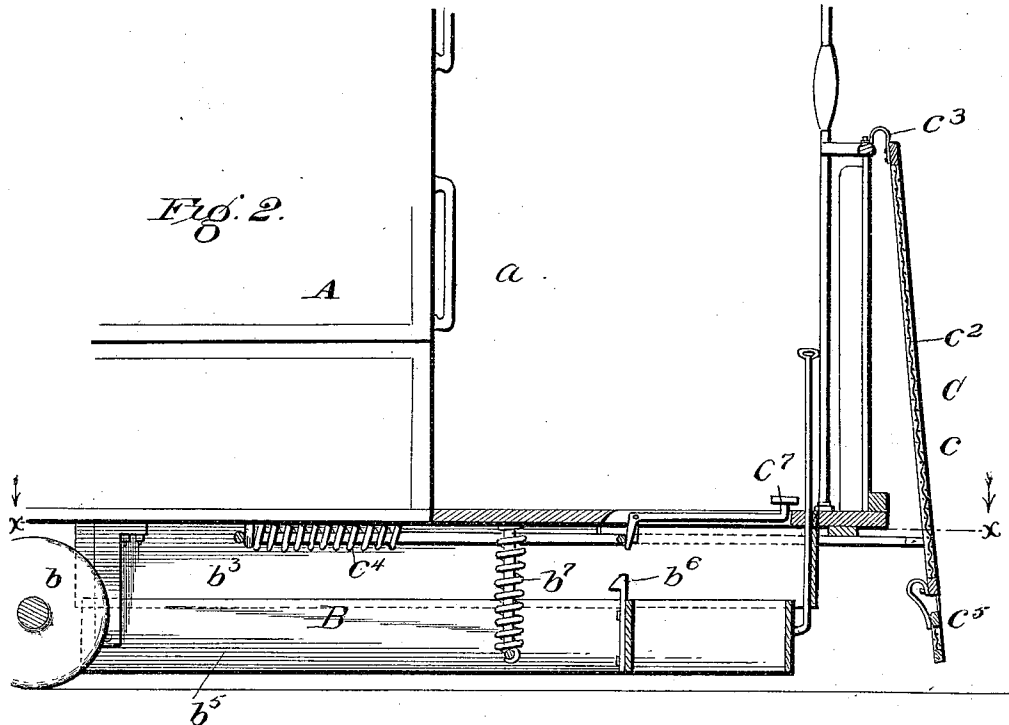
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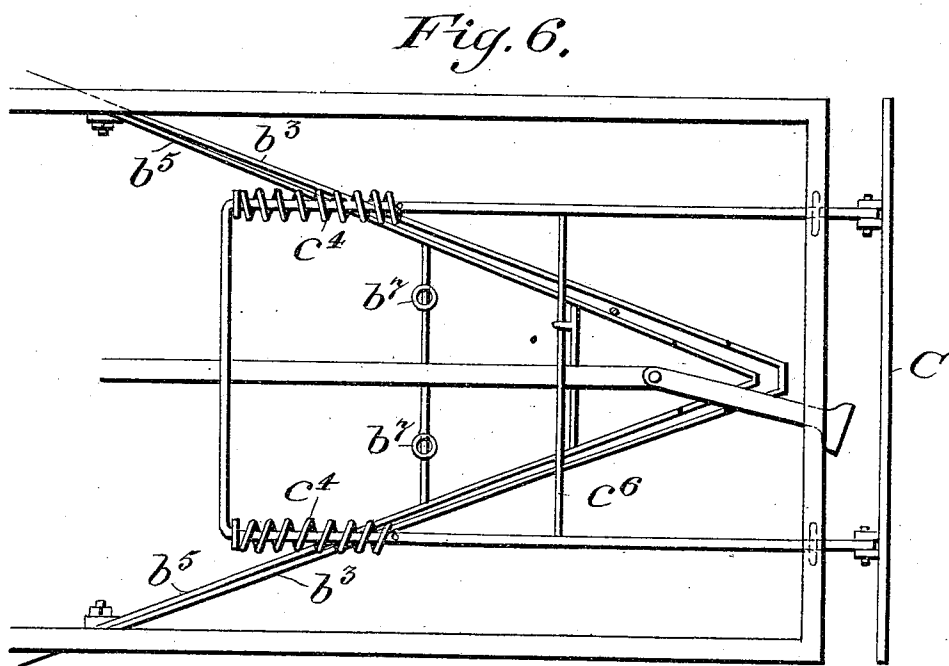
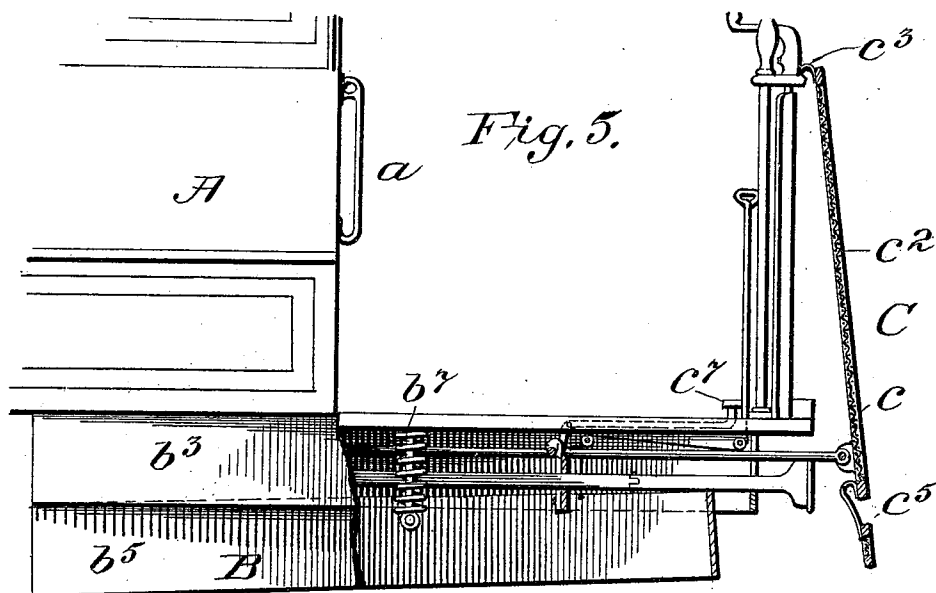
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3 Sheets—Sheet 3.

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UNITED STATES PATENT OFFICE.

GEORGE ERETY SHOEMAKER, OF PHILADELPHIA, PENNSYLVANIA.

CAR-FENDER AND WHEEL-GUARD.

SPECIFICATION forming part of Letters Patent No. 544,195, dated August 6, 1895.

Application filed February 11, 1895. Serial No. 537,992. (No model.)

To all whom it may concern:

Be it known that I, GEORGE ERETY SHOEMAKER, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Car-Fenders and Wheel-Guards; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to fenders for cars and other vehicles.

The object is to produce a guard or fender of simple and inexpensive construction, capable of being readily applied, and by which the removal of obstructions, such as man or beast, from the track, will be effected with comparative safety and without inflicting serious injury.

With this object in view the invention consists in an approved construction and an arrangement of parts to be hereinafter fully described and claimed.

In the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in the several views, Figure 1 is a view in perspective of one embodiment of the invention applied. Fig. 2 is a view in center vertical section thereof. Fig. 3 is a view in horizontal section taken on the line XX of Fig. 2. Fig. 4 is a view in elevation of a modification. Fig. 5 is a view in horizontal section of a further modification, and Fig. 6 is a view in vertical section of the same.

In the drawings, A indicates a portion of a car and *a* the forward end thereof, to which the fender is applied.

B indicates the wheel-guard and fender, which consists of a collapsing or folding frame *b*, formed of a series of approximately V-shaped sections *b*², horizontally arranged one above the other, to open or close by telescoping at the forward ends. The upper section *b*³ is rigidly secured in advance of the truck to the floor-frame of the car, its sides being inclined and meeting at a point centrally beneath the dash. The opposite extremities of the sides extend outward in front of the wheels and thereby serve effectively as guards

in preventing bodies from being thrown beneath the wheels.

Depending from the floor-frame of the car are two supports *b*⁴ *b*⁴, to which the lower section or sections *b*⁵ are pivoted, the opposite ends of the sections being suitably connected, as by a rod or chain, which passes through an opening in the platform within convenient reach of the motorman or driver. By means of this chain or rod the fender may be raised and is thus normally held by any form of catch—such, for example, as the self-engaging projection *b*⁶. To facilitate and at the same time insure rapid action in dropping or lowering the fender-sections, a spring *b*⁷ is employed and is seated upon the bottom of the car, and acting upon the lower sections serves to exert a constant downward pressure thereon.

C indicates a yielding-mounted buffer, which is designed to deaden the blow of collision, and is formed of an approximately-square frame *c*, which may be either tubular or solid, and upon which a netting *c*² of metal or other material is stretched. The frame is supported at the top by springs *c*³ *c*³, and is mounted so as to yield uniformly from contact at any point thereof. In so yielding it releases or serves as an automatic trip for the fender-sections, which, under the action of the downward-acting spring, drop and thereby prevent bodies or other obstructions from passing beneath the car. By reason of the wedge-like or V-shaped section bodies will be pushed to the side clear of the track. This buffer is normally held inclined or with its lower end advanced by a movable spring-seated frame *c*⁴, and is provided with a hinged spring-held bottom section *c*⁵. Secured between the side bars of this frame is a cross-rod *c*⁶, with which the projection of the fender-sections engage and thereby locks and holds the fender in an elevated or collapsed position, its release being effected by the movement of the frame, resulting from the collision between the buffer and an obstruction upon the track. By means of a pivoted foot-lever *c*⁷, the extremity of which is bent downward and normally engages the cross-bar of the spring-seated frame, the motorman or driver may, by depressing the projecting end

of the lever, disengage or drop the fender—when, for example, a small child is upon the track—in such position as not to collide with the buffer.

5 Referring to Fig. 4, a modified form of fender is illustrated, which consists in pivoting the V-shaped sections upon supports swung from the upper fixed section.

10 When the draw-bar is used, the rod for raising the fender is attached at one side of the lower section instead of in front, and the projecting catch on the lower section is also at one side, while the cross-bar on the spring-seated frame beneath the car is bent downward, so as to work without interference with
15 the draw-bar, as is shown in Figs. 5 and 6.

Having thus fully described my invention, what I claim as new is—

20 1. In combination, a fender formed of a series of spring actuated V-shaped sections, connected and mounted to partially or wholly telescope one within the other, an automatic trip, and a controlling device adapted, to be operated by the hand or foot, by which the
25 fender is raised and lowered, for the purpose described.

2. A buffer, comprising two sections hinged

together, the lower section being spring-held, for the purpose described.

3. In combination, a buffer mounted in advance of the dash, a spring-seated projecting
30 frame supporting the buffer, a collapsible wedge-shaped fender beneath the car and adapted to be adjusted to operative position by the blow of collision, the fender being held
35 with its forward end elevated clear of road inequalities, for the purpose described.

4. A collapsing wedge-shaped fender consisting of a number of sections pivoted at their inner ends and having their outer ends
40 held normally elevated and adapted to be released by the foot or automatically by the blow of collision with a yielding buffer in advance of the dash, and a spring-seated frame beneath the platform connecting the fender and
45 buffer, for the purpose described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

GEORGE ERETY SHOEMAKER.

Witnesses:

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THOS. S. REED.