(No Model.)

W. L. FRIEDLEIN.

CAR FENDER.

No. 568,302. Patented Sept. 22, 1896.

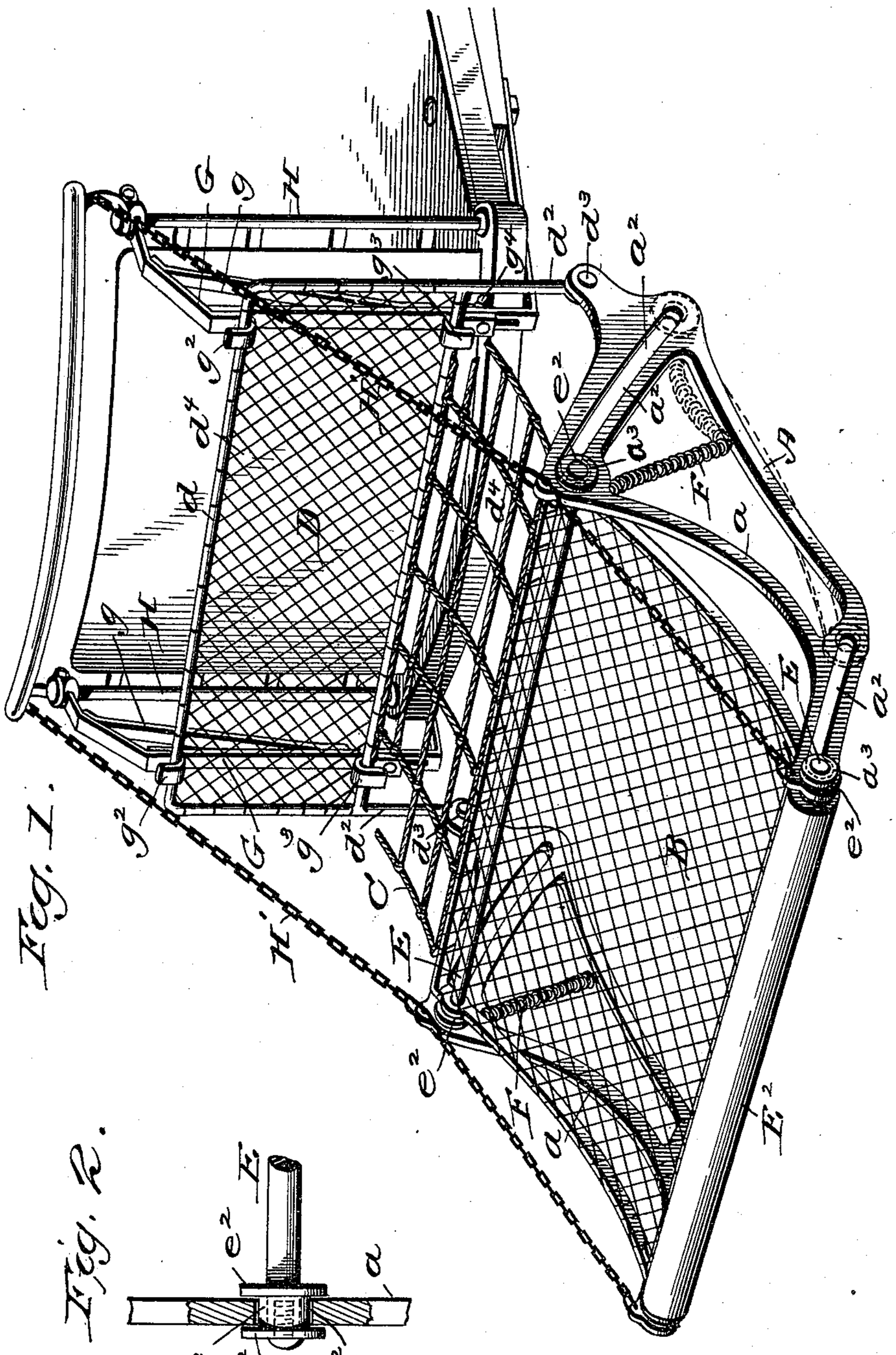

Fig. 1.

Fig. 2.

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UNITED STATES PATENT OFFICE.

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CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 568,302, dated September 22, 1896.

Application filed November 20, 1895. Serial No. 569,569. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM L. FRIEDLEIN, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Car-Fenders; 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.

This invention relates to street-car fenders.

The object is to produce a fender which will effectually prevent injury to a person struck by it or falling upon it; furthermore, to produce a fender which will be entirely automatic in operation—that is to say, one that will operate without any aid or attention from the motorman; furthermore, to produce a fender in which the parts, after having been deranged by use, will automatically resume their normal positions when the weight that deranged them is removed from the bed; furthermore, to produce a fender which shall combine simplicity and effectiveness of construction with high utility and durability in use and cheapness of manufacture.

In a car-fender characterized by my invention I provide a frame suitably mounted to permit of its being raised or lowered, as desired. Upon the frame is arranged a bed of any suitable material which is adapted to yield to the weight of a falling body, so as to prevent any tendency to rebound, which might, if the bed were rigidly secured to the frame, tend to throw such body out of the bed and onto the street. The bed may be secured to the frame in any suitable manner, but as a matter of specific improvement I prefer to secure the bed to shafts or bars having a sliding connection with the frame, said shafts being held normally in their proper positions by a spring, which operates also to return the bed to its position after having been deranged by a body falling upon it. I also provide, in conjunction with the bed, a guard or netting to prevent a body from falling off the back of the bed, or of a limb getting caught between the bed and the pavement, which might result in death or severe injury. In addition to the bed and guard referred to I also provide a dasher-guard which operates to prevent the head of a person falling upon the bed from striking against the car-bumper.

Further and more specific details of construction will be hereinafter fully pointed out and claimed.

In the accompanying drawings, forming a part of this specification, and in which like letters of reference indicate corresponding parts, I have illustrated an embodiment of my invention, although other embodiments thereof may be employed without departing from the spirit of the same, and in the drawings—

Figure 1 is a view in perspective, showing the fender applied to a car. Fig. 2 is a detached detail view, showing the manner of connecting the shafts carrying the bed with the supporting-frame, the view being in section.

Referring to the drawings, A designates the supporting-frame of the fender; B, the bed of the fender; C, the body-guard, and D the dasher-guard. The supporting-frame, which for lightness is in the nature of a skeleton frame, comprises two brackets a, of metal or other suitable material, provided each with two inclined slots a^2, located, respectively, at the front and the rear of the frame. These slots are engaged by rollers e, carried by the shafts E, to which the bed is attached, flanges or collars e^2 on the shafts operating to hold the rollers within the slots, and also to brace the frame against spreading from strains incident to use when struck by a body. The upper portion of each of the slots is recessed, as shown at a^3, in order to hold the shafts in the position indicated in full lines in Fig. 1, springs F, secured near the rear portion of the bed and exerting upward pressure, operating normally to keep the rollers in these recesses. The shaft E, to which the front portion of the bed is secured, carries a roller E^2, of rubber or other elastic or yielding material, designed to trip and throw a person in front of the car, the yielding nature of this roller preventing it from inflicting injury to the person thus struck. Instead of making the roller E^2 of rubber, it may be constructed of wood covered with leather, with cotton or the like stuffed between the roller and its cover.

The supporting-bracket for the fender com-

prises two rectangular-shaped pieces of metal G, secured, respectively, to the dasher-posts H of the car and to the under side of the car-body, as clearly shown, a brace g serving to render the brackets rigid. Each of these brackets carries near its upper portion a hook g^2, which extends upward and is rigid, and near its lower portion a hook g^3, which extends downward and is adjustable, the two sets of hooks forming a support for the dasher-guard D, which latter comprises an approximately rectangular frame d, provided with downward-projecting extensions d^2, having at their lower ends pintles d^3, on which is pivoted the supporting-frame A of the fender, and a suitable covering d^4 of woven fabric or the like; and connecting the lower bar of the frame d and the rear end of the bed is the body-guard C, which may also be of woven fabric, or, if preferred, of ropes interwoven.

The frame A is supported from the dasher-board by means of ropes or chains H, which are connected with the frame near its outer end and at a point near its rear portion and to the dasher-board posts by means of hooks or the like. It is to be understood that the fender may be removed from the dasher-board and that it may be folded up against the dasher-board in such way as not to interfere with the range of vision of the motorman.

In attaching the fender to a car the braces G are secured to the dasher-posts and to the car-body, as described. The top bar of the frame d is then brought into engagement with the hooks g^2 and the bottom bar with the hooks g^3, and the latter hooks are drawn tightly down on this latter bar and locked by means of thumb-nuts g^4. The rollers e are now set within the recesses a^3, with the spring extended, as shown in full lines in Fig. 1. As soon as a body falls upon the bed the front rollers will be forced out of their respective recesses and will slide down the slot, a like result taking place with the rear rollers. The bed is thus let down in such manner that the person thereon will not be injured in the least. As soon as the person leaves the bed the spring F will cause the bed to resume its normal position.

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

1. A car-fender comprising a supporting-frame provided with inclined slots, each having a recess in its upper portion, shafts working in said slots and held in operative position by the said recesses, a bed secured to the shafts, a dasher-guard, and a body-guard between the bed and the dasher-guard, substantially as described.

2. A car-fender comprising a supporting-frame provided with inclined slots, shafts carrying rollers working in the slots, a bed secured to the shafts, a dasher-guard, and a body-guard connecting the bed and the dasher-guard, substantially as described.

3. A car-fender comprising a supporting-frame provided with inclined slots, shafts carrying rollers working in the slots, a bed secured to the shafts, springs coacting with the bed to hold it in operative position, a dasher-guard, and a body-guard connecting the bed and the dasher-guard, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

WM. L. FRIEDLEIN.

Witnesses:
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