

No. 737,806.

PATENTED SEPT. 1, 1903.

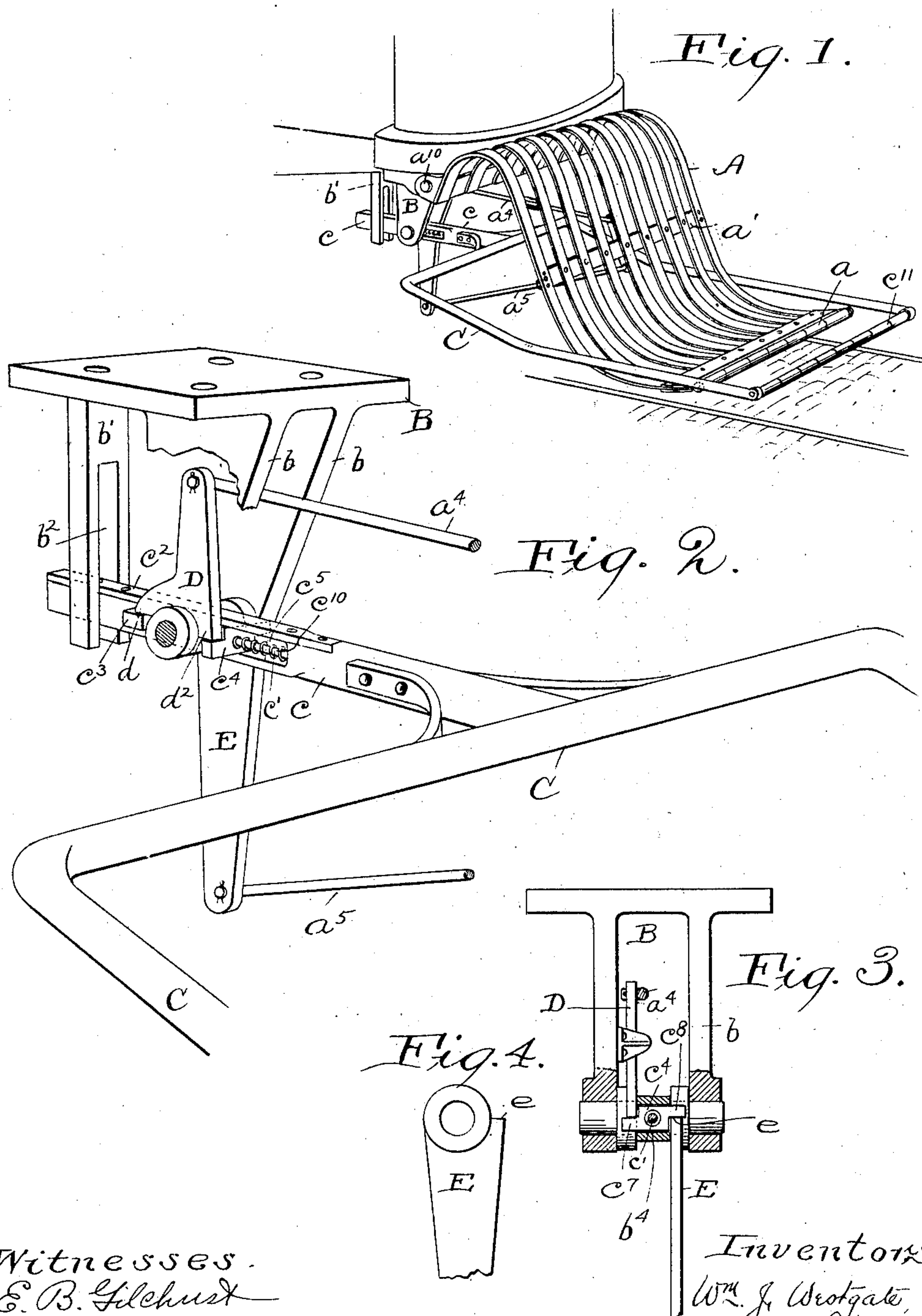
W. J. WESTGATE & C. E. HERRICK.

CAR FENDER.

APPLICATION FILED SEPT. 23, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses.

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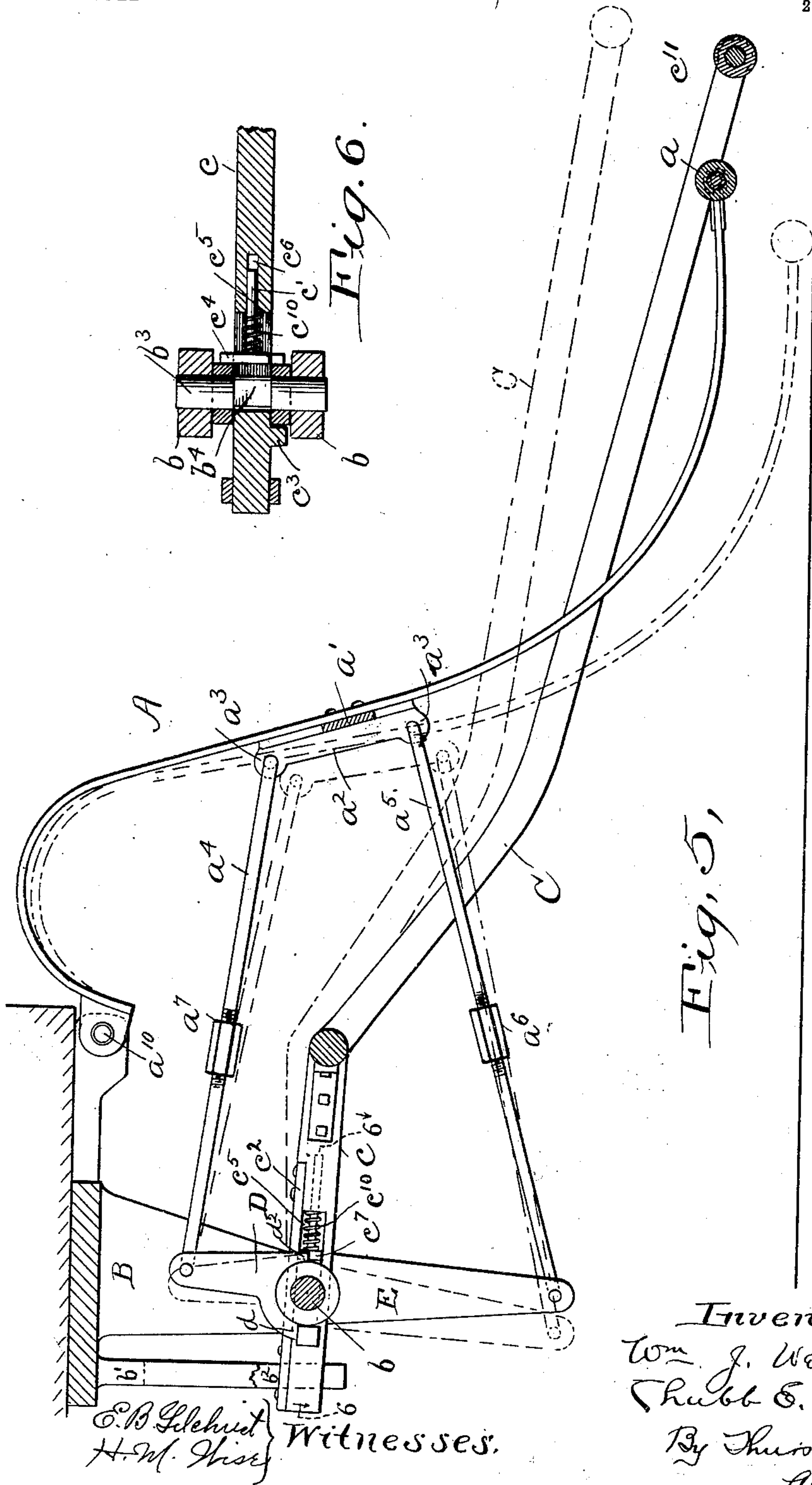
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UNITED STATES PATENT OFFICE.

WILLIAM J. WESTGATE, OF GLENVILLE, AND CHUBB E. HERRICK, OF CLEVELAND, OHIO.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 737,806, dated September 1, 1903.

Application filed September 23, 1902. Serial No. 124,549. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM J. WESTGATE, residing at Glenville, and CHUBB E. HERRICK, residing at Cleveland, in the county of Cuyahoga and State of Ohio, citizens of the United States, have invented a certain new and useful Improvement in Car-Fenders, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

The object of our invention is to provide a car-fender wherein an apron normally held above the track will be depressed onto the track in position to catch any obstacle thereon, be it large or small.

Owing to the teetering of the car and the unevenness of the track a fender-apron must normally stand a considerable distance above the track, and from this it has resulted that when the fender strikes a comparatively low object, as a person, lying on the track, or a child, the fender is very liable to ride over the object instead of scooping underneath it. Our invention effectually prevents this by providing a guard in front of the apron, which is adapted both to be shoved rearward and to be raised and is connected with the apron in such manner that either of these movements immediately results in the depression of the apron. Our invention includes such an arrangement, broadly, and the more specific embodiment thereof hereinafter shown, wherefore the invention may most conveniently be summarized as consisting of the combinations of elements described herein and definitely set out in the claims.

Referring to the drawings, Figure 1 is a perspective view showing our device applied to the under side of the car-platform. Fig. 2 is a perspective view of the controlling mechanism. Fig. 3 is a front elevation, partly in section, of the levers and their support. Fig. 4 is a side elevation of the portion of what we term the "sustaining-lever." Fig. 5 is a longitudinal sectional view through the center of the fender and the associated parts. Fig. 6 is a horizontal section on the line 6-6 of Fig. 5.

In carrying out the above-mentioned objects we pivot to the under side of the forward portion of the car-platform, as at a^{10} , an apron A, which may be of substantially the form shown

in Fig. 1. This apron is shown as provided upon its forward end with a shaft upon which a series of rollers a is mounted, and also with a cross-bar a' , which is secured to the back side and has fastened thereto a clip a^2 . Suitable ears a^3 are provided upon this clip for receiving the ends of links a^4 .

To the rear of the pivotal point a^{10} of the apron A is a bracket B, having downwardly-extending members b and a guide-block b' , which has a central slot b^2 for a purpose which will hereinafter be set forth. Mounted in the lower end of the member b is a pin b^3 , having in this instance a squared portion b^4 . Pivoted upon the pin b^3 is a stem c , which carries upon its forward end a guard-frame C of the form shown, with its outer end c^{11} extending to a position which is in front of the forward end of the apron.

The rear end of the stem c extends into the slot b^2 and serves to guide the guard-frame in its movement. A long recess c^5 is formed in the stem c for receiving the pin b^3 and is closed at the top by a plate c^2 , thereby forming an elongated slot in said stem. The pin operating in this slot serves to form a pivotal point for said guard-frame. Rigid with the stem is a lug c^3 , and in the forward end of the recess c^5 is a spring c^{10} , actuating a dog c^4 , which has a guide-pin c' , extending into an opening c^6 in the stem. This dog c^4 carries two lugs c^7 and c^8 , which project from either side of the stem c , as shown in Fig. 3. Pivoted upon the pin b^3 , on either side of the stem c , are two levers—one, D, which we term the "fender-drop" lever, and the other, E, denominated the "fender-sustaining" lever. The lever D is provided with a shoulder d , which engages the lug c^3 , and with a shoulder d^2 , which engages the lug c^7 , carried by the dog. A link a^4 connects this lever with one of the ears a^3 on the clip carried by the apron. The other lever, E, has a shoulder e , which takes under the lug c^8 of the dog. This lever is connected by a link a^5 with the other one of the ears a^3 . The links a^4 and a^5 are provided with turnbuckles a^6 and a^7 , which serve as a means for adjusting them to produce the proper position of the fender.

It will be seen from the foregoing description that when the guard-frame is in the po-

sition shown in full lines in Fig. 5, with the lug c^3 in engagement with the lug d of the lever D, the apron will be retained in that position by reason of the fact that the guard-frame exerts a greater pressure forward upon the upper end of the lever D than that exerted backward by the fender through the link a^4 upon the same point. In other words, the guard-frame overbalances the apron. Therefore the tendency of the guard-frame in its downward movement is to turn the lever D upon its pivot in a forward direction and force the link a^4 and the apron forward. This tendency would continue until the guard-frame rested upon the ground were it not for the fact that such movement is limited by the bringing into play of the lever E and the link a^5 . The forward inclination of the lever D to force the apron to turn upward on its pivot pulls the link a^5 and the lever E in a forward direction also; but since the lever D takes on the upper side of the dog c^4 and the lever E the under side thereof they are not permitted to kink forward, the lever E being thus prevented from going farther forward and continuing to raise the apron. This arrangement also retains the guard-frame in a raised position by reason of the engagement of the lug c^3 on the stem c with the lug d on the lever D.

Should a person be lying upon the track, as the car advances the guard-frame will rise over the body and the lever D will be swung rearward, and the apron thereby depressed upon the track in position to catch up the body. When the body is removed from the fender, the parts will again resume their normal positions for the reasons hereinbefore described.

Should a person be standing upon the track, the guard-frame will be struck and the stem c will be forced back upon the pin b^3 until the lug c^3 disengages from under the lug d of the lever D, when the apron will be free to operate said lever D, and both the guard-frame and the apron will descend upon the track. Thereafter, the body having been removed from the apron, the guard-frame is raised by hand sufficiently to permit the lug c^3 to pass under the lug d of the lever D. Then the guard-frame is pulled forward, so as to engage the parts just described, and when released the fender is again ready to operate.

The guard-frame may be extended forward in front of the apron any desired distance, which will insure the dropping of the apron before the body has passed under it. It is shown as having rollers c^{11} upon its front bar.

Having described our invention, we claim—
1. In a car-fender, the combination with the car-body, of an apron and a guard-frame, and suitable connecting mechanism arranged to depress the apron either when the guard-frame is raised or when it is moved rearward, substantially as described.

2. In a car-fender, the combination with a car-body, of an apron carried thereon, a guard-

frame also carried by the car-body and arranged to normally sustain itself and the apron in a raised position, and means whereby said apron will be dropped when said guard-frame is raised and whereby both the apron and the frame may be dropped when said frame is struck, substantially as described.

3. In a car-fender, the combination with the car-body, of an apron pivotally carried thereby, an independent guard-frame pivotally and movably carried by the car-body and extending out in front of the apron, a lever and link connecting the guard-frame with the apron so that the frame normally overbalances the apron but if raised will lower the apron, and means whereby the rearward movement of said guard-frame releases said lever to drop the apron and guard-frame, substantially as described.

4. In a car-fender, the combination with the car-body, of an apron carried thereby, an independent guard-frame pivotally and movably carried by the car-body and extending out in front of the apron, a lever and link connecting the guard-frame with the apron so that the frame normally overbalances the apron but if raised will lower the apron, and cooperating shoulders between the guard-frame and said lever normally in engagement but adapted to be released by the rearward movement of said guard-frame, substantially as described.

5. In a car-fender, the combination with a car-body, of an apron carried thereby, a guard-frame also carried by the car-body, a lever operated by the guard-frame and connected with said apron, another lever adapted to sustain the guard-frame, means whereby said guard-frame may release said levers to drop the apron, substantially as described.

6. In a car-fender, the combination with the car-body, of an apron carried thereby, a guard-frame also carried by the car-body, a lever having a link connected to said apron for operating the same, means whereby said guard-frame may operate said lever and lower said apron, another lever having a link connected to the apron, said levers being prevented from kinking in the forward direction by a dog, and means whereby said frame may be disengaged from said levers and permit the apron and the frame to drop, substantially as described.

7. In a car-fender, the combination with the car-body, of an apron carried thereby, an independent guard-frame, a lever pivotally mounted on the car-body, a link connecting said lever and said apron, a lug carried by said guard-frame for engaging said lever, another lever also pivotally mounted on the car-body, a link between said second-mentioned lever and the apron, and a dog carried by the guard-frame preventing the forward movement of said levers, substantially as described.

8. In a car-fender, the combination with the car-body, the apron carried thereby, an independent guard-frame extending out in front

of the apron, a pair of levers mounted on the same axis carried by the car-body, one lever extending upward and the other downward, links connecting said levers with the apron, 5 a dog carried by the guard-frame and engaging a shoulder on the under side of the upper lever and on the upper side of the under lever, and a lug carried by said guard-frame adapted to engage a shoulder on the upper lever or be 10 released therefrom when the guard-frame moves rearward, substantially as described.

9. In a car-fender, the combination with the car-body, the apron carried thereby, an independent guard-frame extending out in front 15 of the apron, a pair of levers mounted on an axle carried by the car-body, one lever extending upward and the other downward, links connecting said levers with the apron, a dog carried by the guard-frame and engag-

ing a shoulder on the under side of the upper 20 lever and on the upper side of the under lever, said guard-frame having a slot which surrounds said axle and which said dog occupies, a lug carried by said guard-frame adapted to 25 engage a shoulder on the under side of the upper lever or be released therefrom when the guard-frame moves rearward, and a spring for maintaining the dog in position in the different locations of the guard-frame, sub- 30 stantially as described.

In testimony whereof we hereunto affix our signatures in the presence of two witnesses.

WILLIAM J. WESTGATE.
CHUBB E. HERRICK.

Witnesses:

H. M. WISE,
ALBERT H. BATES.