

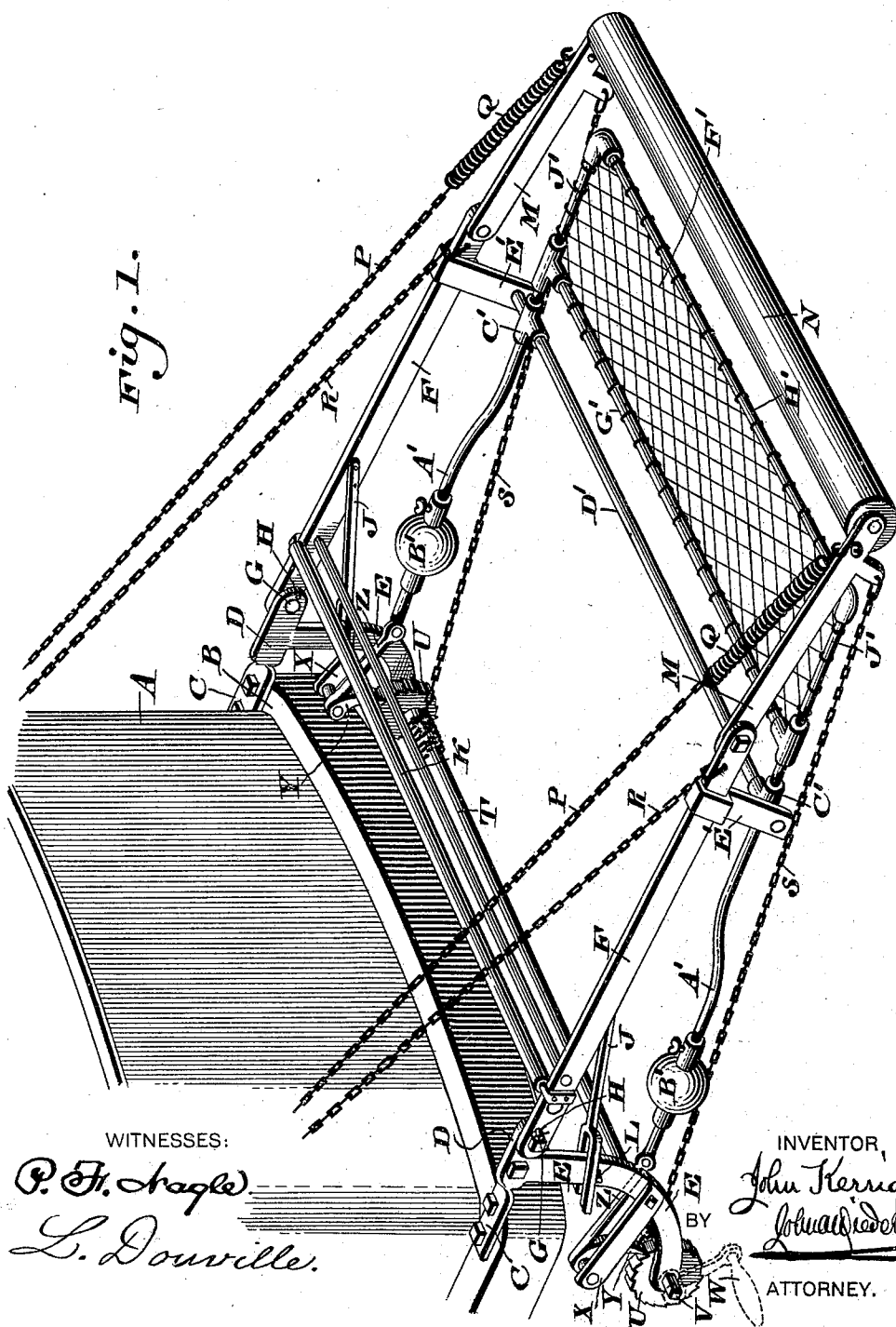
(No Model.)

2 Sheets—Sheet 1.

J. KERRIGAN.
CAR FENDER.

No. 555,777.

Patented Mar. 3, 1896.



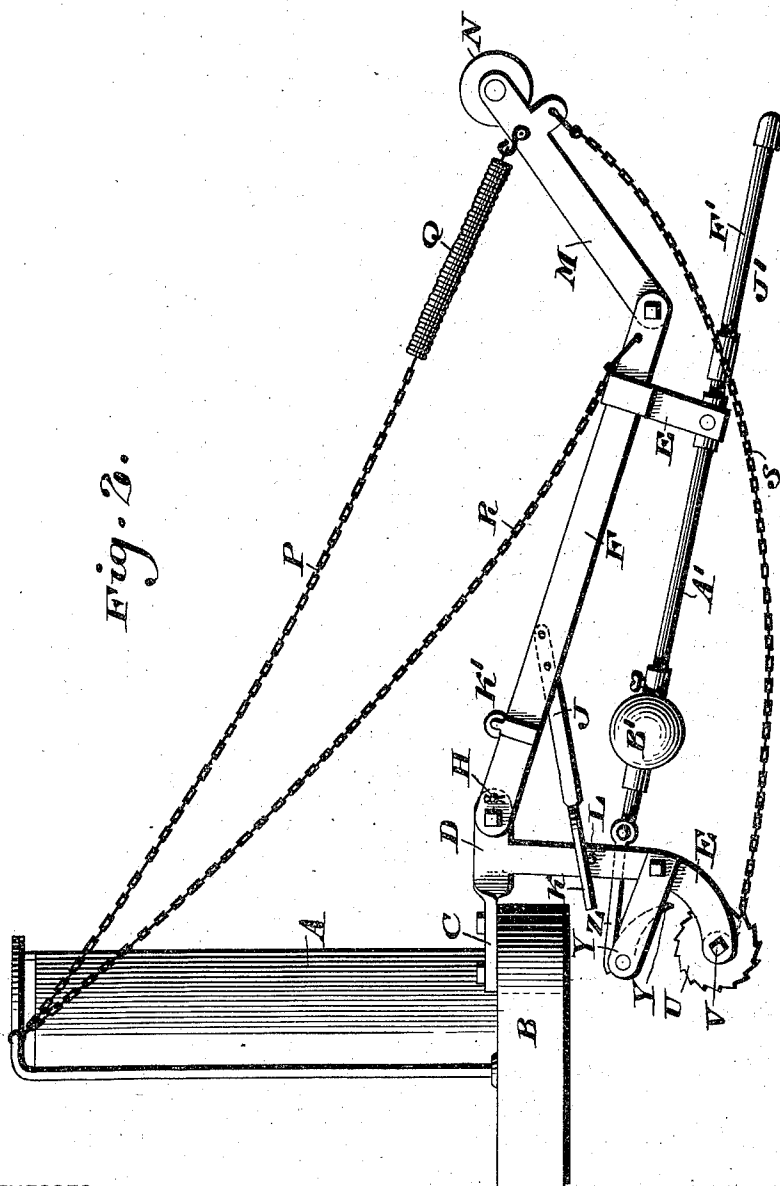
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WITNESSES:

P. H. Chagw.
L. Douville.

INVENTOR

INVENTOR
John Ferrigan.
BY John W. Deversheim.

ATTORNEY.

UNITED STATES PATENT OFFICE.

JOHN KERRIGAN, OF PHILADELPHIA, PENNSYLVANIA.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 555,777, dated March 3, 1896.

Application filed January 8, 1896. Serial No. 574,689. (No model.)

To all whom it may concern:

Be it known that I, JOHN KERRIGAN, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Car-Fenders, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a novel construction of car-fender, which is simple and effective in operation and can be readily attached to existing cars without necessitating any change in the same, means being provided for causing the forward portion of the fender to be always retained in a downwardly-inclined position until an object is struck, whereupon the impact of said object with a suitable trap actuates a tripping device, whereby the forward portion of the fender is caused to turn upwardly, and thus retain in the fender the object struck and prevent the same from rolling out, and so receiving serious injury.

It also consists of a novel construction of trap and tripping device, whereby the fender is thrown into operation when an object is struck.

It also consists of the novel manner of supporting and actuating the forward portion of the fender.

It further consists of novel details of construction, all as will be hereinafter set forth.

Figure 1 represents a perspective view of a fender embodying my invention, the parts being shown in operative or normal position. Fig. 2 represents a side elevation of the fender, showing the position the parts assume after the tripping mechanism has been operated by its contact with the object struck.

Similar letters of reference indicate corresponding parts in the two figures.

Referring to the drawings, A designates the dashboard of the car and B the platform thereof, the above parts being of ordinary construction.

C designates a bracket or brace which is attached on each side of said platform or the car-body, said bracket having a forwardly-extending arm D and a depending arm E.

F designates a forwardly-extending bar, which is attached to each of said arms D and is held in position by means of the pin or

bolt G and a dowel-pin H, the latter holding the said bars F rigid in forward position, but enabling said bars, if said dowel-pins are withdrawn, to be turned upwardly, as is evident, it being understood that said bars are provided with a netting which is omitted from the drawings for the sake of clearness of illustration.

J designates braces having one of their ends attached to said bars F, while the other end is forked and rests upon the pins L attached to the arm E.

M designates forwardly-extending bars provided with a netting, (not shown,) which are pivotally attached to the bars F, said bars M being joined at their forward ends by the transverse buffer N, which may be constructed of rubber, leather or other suitable material.

P designates chains or connections which have one of their ends attached to the dashboard of the car, while their other ends are attached to suitable coil or other springs Q, the extremities of the latter being attached to said arms M.

R designates chains or connections which have one of their ends attached to the dashboard or other fixed point, while their other extremities are attached to the ends of the bars F.

S designates other chains or connections which have one of their ends attached to a suitable lug or ear on the bars M, while their other extremities are attached to the cross-rod T, which is rotatably mounted in the arms E, said cross-rod having mounted thereon the ratchet-wheels U.

V designates a squared portion of the ends of said cross-rod, to which a wrench or crank-handle W is to be applied when it is desired to reset the fender, as will be hereinafter explained.

X designates bars attached to the arms E, in which are rotatably mounted the pawls Y, which are adapted to engage the ratchets U, said pawls having attached thereto the arms Z, from which extend the rods A' on either side of the T's or other connections C', which are connected by the cross-rods D', the latter being rotatably mounted in the depending bearings E', which are attached to the bars F.

B' designates counterbalances which are mounted upon the rods A', so as to be shifted

along the same, said counterbalances being held in position in any convenient manner, as by thumb-screws or other devices.

F' designates a trap which is composed of the front and rear sections H' G' and the side sections J', thereby forming a frame which is covered with netting, the said trap being attached to the T's C', and being therefore actuated in unison with the rods A', arms Z and 10 pawls Y.

The operation is as follows: The parts are shown in their normal position in Fig. 1, the chain or other connection S holding the bars M in the position seen against the pull of the chains P and springs Q, it being remembered that the said chains S are wound upon the cross-rod T, as indicated, and said rod being held in position by means of the engagement of the ratchets U with the pawls Y. 20 If an object is struck the impact of the same with the buffer N will cause it to fall upon the frame or trap F', thereby causing a depression of the same by reason of its being rotatably mounted in the bearings E', which depression or downward movement will cause the rods A' to move forwardly, and thereby trip or disengage the pawls Y from their respective ratchets U, whereupon the tension of the spring Q will cause the forward portion of the fender, which consists of the bars M and the netting across the same, (not shown,) to turn upwardly and assume the position seen in Fig. 2, the object struck being received within the cradle formed between the bars F and M and the netting therebetween, which is omitted from the drawings for the sake of clearness of illustration. 35

When it is desired to reset the fender, it can be done by rotating the cross-rod T in the proper direction, and when the bars M, the buffer N, and their adjuncts have reached the position seen in Fig. 1 the engagement of the pawls and ratchets will cause them to retain said position until an object is again struck. 40 The counterbalances B' can be shifted along the arms A', according to requirements, as is evident, and it will further be apparent that although I have shown a trap F' and its adjuncts and the connections intermediate the same, and the pawls as composed of piping, T's, &c., various changes may be made in the manner of constructing and assembling the same, and I therefore reserve to myself the right to make such changes as will come within the scope of my invention. 55

When it is desired to fold up the fender, the pins H are removed from the position seen in the drawings, after which the fender can be turned upwardly against the dashboard and held there by any convenient means. 60

The fender is automatic in its action and requires no attention of the motorman, since it is thrown into operation only when an object is struck with sufficient force to cause it to fall upon the trap F'. 65

The cross-rod K serves as a brace for the

rear portion of the fender and may be covered with leather, rubber, or other suitable material, so as to prevent injury to the object 70 struck.

It will further be apparent that in place of the weights or counterbalances B' springs may be employed having one of their ends attached to said rods A' and their other ends to the arms E. 75

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

1. A car-fender, consisting of a stationary frame, a movable member attached thereto, a trap movably mounted upon said stationary portion, a ratchet-and-pawl mechanism also mounted upon the latter, connections from said trap to said mechanism, and springs and suitable connections for holding said member in position, substantially as described. 80 85

2. A car-fender consisting of a stationary frame, a movable member attached thereto, a trap movably mounted adjacent the same, counterbalancing devices for said trap, a ratchet-and-pawl mechanism suitably supported, connections from said trap to said mechanism, a yielding connection common to said movable member and a fixed point, and means for setting said member, substantially as described. 90 95

3. In a car-fender, a trap movably mounted, a ratchet-and-pawl mechanism supported in the rear thereof, connections intermediate said mechanism and trap, a stationary frame having a movable member mounted thereupon, springs intermediate said member and the dashboard, and means for holding said member in a forward position, substantially as described. 100 105

4. A car-fender, consisting of suitable brackets having forwardly-projecting and depending arms, a stationary frame mounted in said forwardly-projecting arms, a cross-rod journaled in said depending arms and carrying ratchets thereon, connections from said stationary frame to the dashboard of the car, forwardly-projecting arms pivotally mounted upon said stationary frame, a buffer connected with said arms, a trap movably mounted, pawls pivotally supported and adapted to engage said ratchets and connections intermediate said trap and pawls, substantially as described. 110 115 120

5. A car-fender, consisting of a stationary frame, a movable frame mounted thereupon, springs intermediate said movable frame and the dashboard, means for holding said movable frame in forward position, a shaft rotatably mounted and having ratchet-wheels thereon, pawls pivotally supported and adapted to engage said ratchet-wheels, a trap movably mounted, and connections intermediate said trap and pawls, substantially as described. 125 130

6. In a car-fender, a trap movably mounted, connections therefrom to a ratchet-and-pawl mechanism, a stationary frame having a movable member mounted thereupon, and

means for actuating the latter when said trap is struck, substantially as described.

7. A car-fender, consisting of stationary and movable members, a cross-rod K attached to said stationary frame and adapted to serve as a buffer, a trap located at the forward portion of the fender, ratchet-and-pawl mechanism, connections from the latter to said trap, and spring-actuated devices for actuating said movable member when said trap is struck, substantially as described.

8. In a car-fender, a stationary frame, arms depending from said stationary frame, a trap

rotatably mounted in said arms, a movable frame, spring-actuated devices for holding said latter frame in position, ratchet-and-pawl mechanism, connections from said trap to said mechanism, counterbalances mounted upon said connections, and yielding devices leading from said latter frame to the dashboard of the car, substantially as described.

JOHN KERRIGAN.

Witnesses:

JOHN A. WIEDERSHEIM,
E. HAYWARD FAIRBANKS.