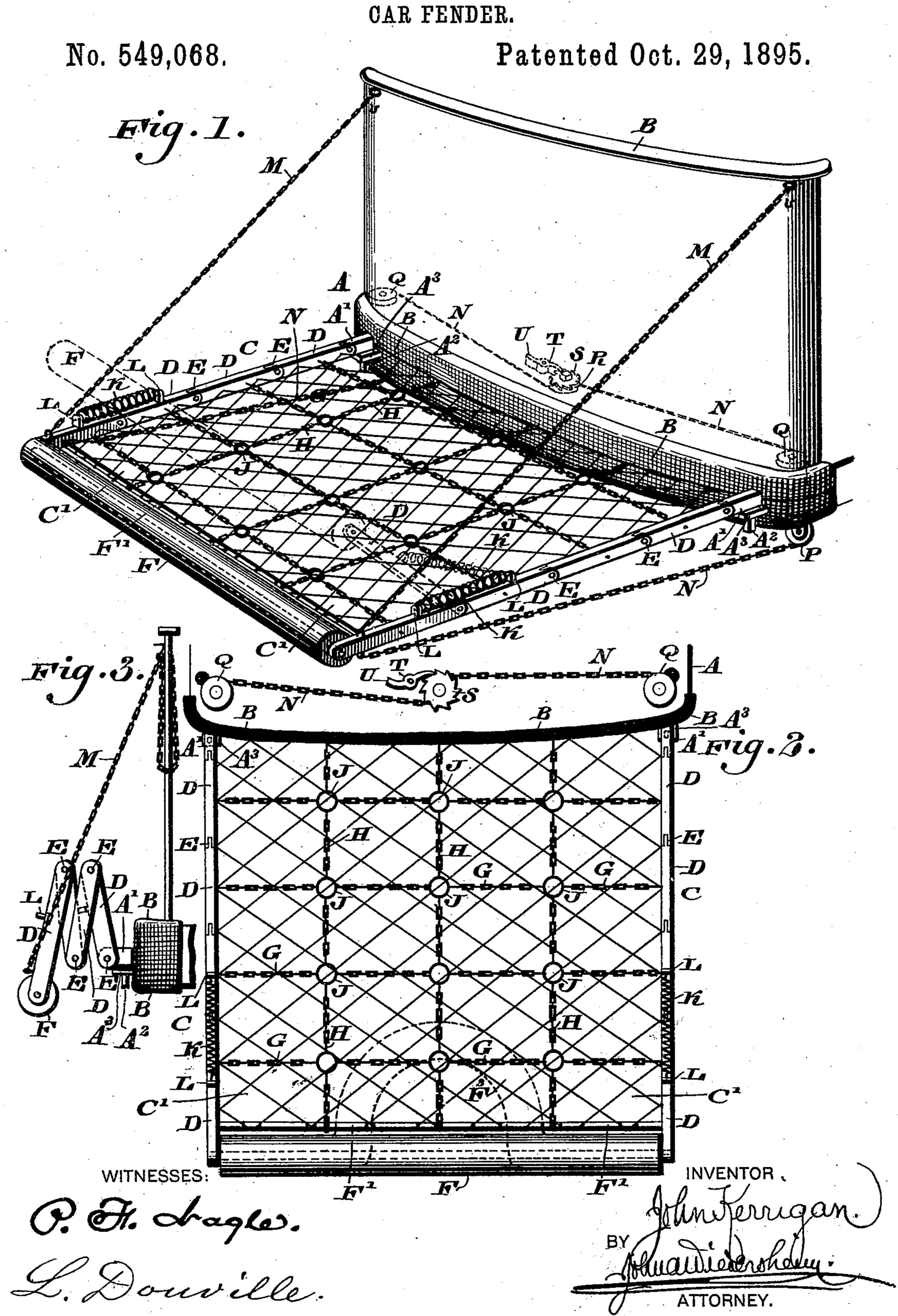
## J. KERRIGAN.



## United States Patent Office.

## JOHN KERRIGAN, OF PHILADELPHIA, PENNSYLVANIA.

## CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 549,068, dated October 29, 1895.

Application filed August 2, 1895. Serial No. 557,974. (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 can be readily applied to existing cars without necessitating
any change in the same, provision being made
for throwing said fender into operative position by the motorman through a movement
of the foot when an object is about to be
struck, means being also provided for readily
folding up the sections composing the frame
of the fender when the same is not in use,
where economy of space is desired, as in a
car-house, &c.

It further consists of novel details of construction, all as will be hereinafter set forth. Figure 1 represents a perspective view of a car-fender embodying my invention and a portion of a car to which the same is applicable. Fig. 2 represents a plan view of the same. Fig. 3 represents on a reduced scale a side elevation of the fender, the same being shown in folded or inoperative position.

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

Referring to the drawings, A designates the platform of a car, and B the dashboard attached thereto.

C designates the fender proper, the same consisting of the side frames, which are composed of the bars D, which are made in sections and are hinged or jointed to each other at E, the said bars projecting forwardly, be-40 ing substantially parallel, and having the forward ends of the front bars joined by the cross-piece or buffer F, forming a front section C', while the rear end of the rear bar D on either side is attached to the rigid arm A', 45 which is itself removably secured to the platform or body of the car A in any suitable manner, said arms having the pins A2, which enter the ears A<sup>8</sup>, it being evident that said bars are held in a substantially rigid position 50 relative to each other, as indicated in Fig. 1, by means of the shoulders of the abutting bars; or, if desired, other means may be em- I ployed which will suggest themselves to those skilled in the art which will attain the same result.

G designates transverse chains which join said bars D at suitable distances apart, and H designates longitudinally-extending chains which may extend from the body or platform of the car to the rod F', adjacent the buffer 60 F, the intersection or meeting points of said chains being eyes or rings J, if desired, as in the present instance.

K designates springs which are mounted, preferably, on the two forward bars D, the 65 ends of each spring being attached to the lugs L on said bars D, the function of said springs to be hereinafter explained.

M designates chains which extend from the dashboard of the car to the forward extrem- 70 ity of the fender and serve to hold the latter normally in its proper position.

N designates chains which have one end attached to the forward part of the fender, preferably below the same, said chains after-yard passing under the pulleys P and around the pulleys Q and having their ends attached to the rotatable drum or cylinder R, to the top of which is attached the ratchet S, which is adapted to be engaged by the pawl or dog T, so the free end U of the latter being adapted to be struck by the foot of the motorman when desired or when a collision is imminent.

The operation is as follows, the parts being shown in their normal position in full lines in Fig. 1: If the motorman sees an object or person in front of the car as the same progresses, it is only necessary for him to kick the free end U of the pawl T with his foot, whereupon the chains N will be lowered and the parts 90 will assume the position seen dotted in Fig. 1, the springs K causing the buffer F and the front section D to instantly incline upwardly, thereby forming a cradle or basket, as seen dotted in Fig. 1, and so preventing the object 95 or person struck, which will fall therein upon a suitable netting, from rolling out upon the ground.

The parts can be readily restored to the position seen in full lines in Fig. 1 by rotation ing the drum R, and thus winding up the chains N thereupon.

When it is desired to fold up the fender, it can be readily accomplished by pulling on the

chains M, the parts assuming the position seen

in Fig. 3, as is evident.

If desired, I may provide the buffer F with an inward bend or recess near its central point, 5 as indicated at F<sup>2</sup> in dotted lines in Fig. 2, the function of the same being to tend to direct the object struck into the netting.

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

ro Patent, is—

1. A car fender having jointed side frames with a buffer at their front ends, chains connected with said buffer and a stationary support above said frames, and chains connected vith said buffer and passing under said frame and connected with a fixed support, said parts being combined substantially as described.

2. A car fender, composed of the jointed side bars D, the transverse and longitudinal 20 chains G and H, the springs K common to a pair of the sections of said side bars, the chain M connected with the front end of said fender, and to stationary supports above said side bars, a chain N having one end attached to 25 the forward portion of said fender, and pass-

ing below said bars, and having its other end connected to a suitable drum, and means for holding said drum in fixed position, substan-

tially as described.

30 3. A car fender, composed of the jointed side bars D, the transverse buffer F at the front end of said bars, transverse and longitudinal chains G and H, the springs K mounted on a pair of the sections of said side bars, and l

the chain M connected with the front of said 35 fender and a stationary support above said bars, the chains N, the pulleys P and Q, the drum R, the ratchet S attached thereto, and the dog T, said chains N being connected with the front end of said fender, and passing un- 40 der said bars and around the pulleys of said

drum, substantially as described.

4. A car fender composed of the jointed side bars D, the transverse buffer F, connected with the front end of said bar and having the 45 inwardly bent portion F2, the transverse and longitudinal chains G and H, the springs K mounted on said side bars, the chains M connected with said fender and a fixed support above said side bars and the chains N below 50 said bars and passing around the pulleys P and Q, the drum R, the ratchet S attached thereto, and the dog T, substantially as described.

5. A car fender having jointed side bars, a 55 buffer connected with the front ends of said bars, and transverse and longitudinal chains having intermediate ring connections, said transverse chains each having direct connection with the side bars and said longitudinal 60 chains being secured to a rod adjacent said buffer, said parts being combined substantially as described.

JOHN KERRIGAN.

Witnesses: JOHN A. WIEDERSHEIM, E. H. FAIRBANKS.