

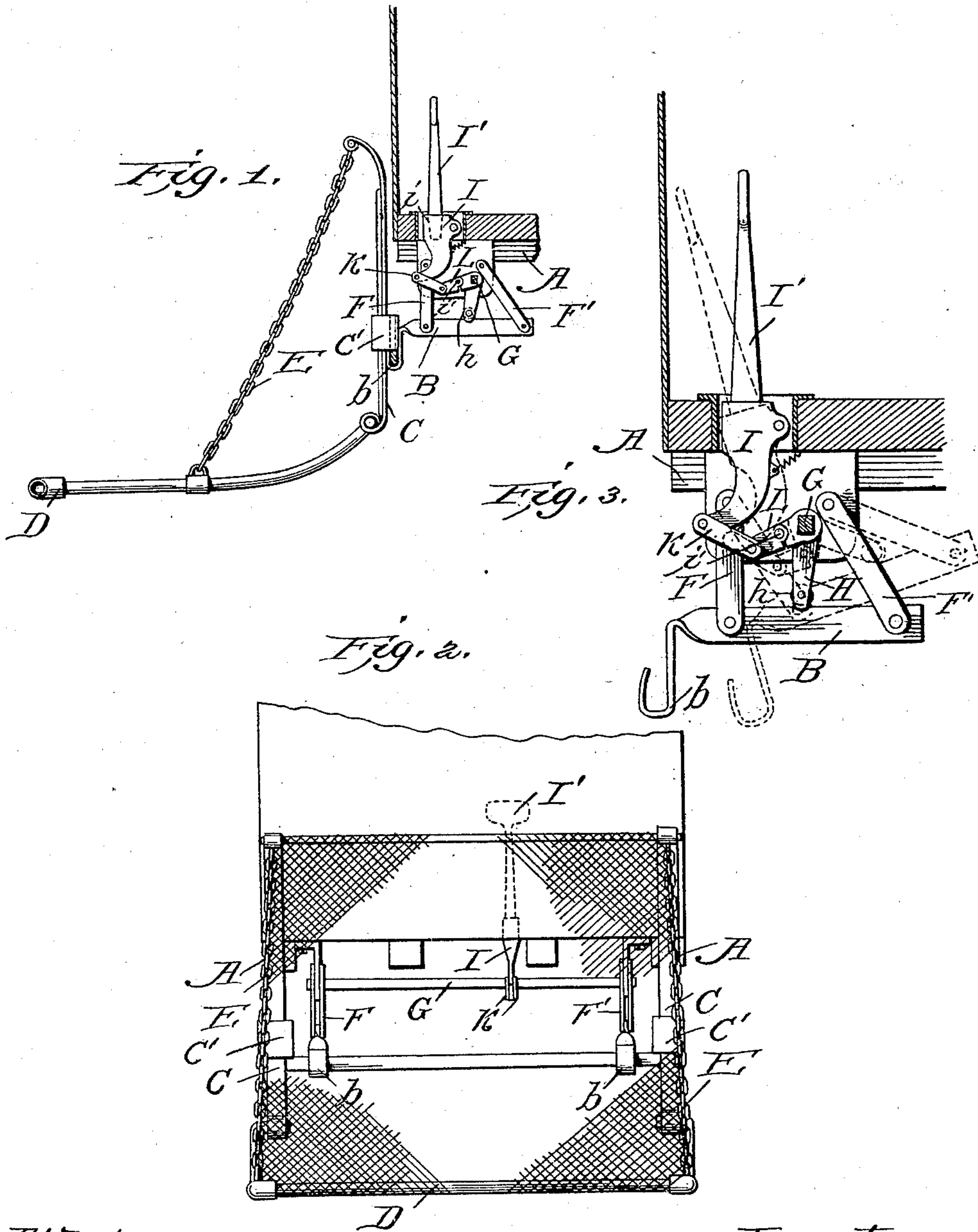
No. 612,785.

Patented Oct. 18, 1898.

G. A. PARMENTER.
STREET CAR FENDER.

(Application filed July 11, 1898.)

(No Model.)



Attest
James M. Spear
J. L. Middleton

Inventor
Geo. A. Parmenter
by Geo. A. Parmenter
Atty.

UNITED STATES PATENT OFFICE.

GEORGE A. PARMENTER, OF CAMBRIDGE, MASSACHUSETTS.

STREET-CAR FENDER.

SPECIFICATION forming part of Letters Patent No. 612,785, dated October 18, 1898.

Application filed July 11, 1898. Serial No. 685,700. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. PARMENTER, a citizen of the United States, residing at Cambridgeport, Middlesex county, Massachusetts, have invented certain new and useful Improvements in Street-Car Fenders, of which the following is a specification.

My invention relates to improvements in street-car fenders of that class in which a hinged fender or scoop is provided projecting beyond the front of the car, which is adapted to be lowered by the motorman, so as to pass under an object lying on the track.

The object of the invention is to improve the details of construction, to cause the lowering of the fender to be easily accomplished by a slight motion of the operating-lever, and to provide a construction whereby the fender may be raised again to normal position by the reverse movement of the operating-lever.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a portion of a car, showing the fender applied thereto. Fig. 2 is a front view. Fig. 3 is a detail view.

In the drawings, A represents the sills of the car-body, and B the hanger-irons, in which the fender proper or scoop is removably supported. This scoop consists, preferably, of a lower shelf D, of suitable material, having its rear edge connected to the lower ends of the springs C, while chains E, extending from the intermediate part of the shelf to the upper ends of the springs, serve to yieldingly support the said front edge. Socket-pieces C', connected with the springs, are removably seated in the hooked forward portions b of the hanger-irons, the parts being so shaped in cross-section that the fender or scoop will be held by the hangers at a certain elevation, but may be lifted out and taken to the other end of the car when the direction of travel of the car is reversed. These hanger-irons B are connected with the car-sills or other suitable part of the car by links F F' in the normal position of the parts, the forward link being substantially vertical and the rear link inclined backward and downward, as shown in full lines in Fig. 1.

A rock-shaft G extends transversely beneath the car-platform, and is provided with arms H, each carrying a roller h at its lower

end, which bears against the upper side of the corresponding hanger-irons, and when the arms H are in a vertical position the hanger-irons are securely locked against any upward and consequently any backward movement. The rock-shaft is rocked to move the arm by a casting I, pivoted to the car-platform, and having a socketed portion i, designed to receive a removable handle I', the lower end of this casting being connected by a link K with an arm L on the shaft G. The handle I' extends into convenient position to be operated by the knee of the motorman, and it will be seen that on the forward movement of the handle the rocking of the casting will, through link K and arm L, rock the shaft G, moving its arm H rearward and allowing the rear of the hanger-irons to swing upward and rearward and the front portions rearward into the position shown in dotted lines, the result being to lower the fender. It will be observed that by this arrangement not only does the weight of the fender tend to lower it, but the fender moves rearward in lowering, and any obstacle encountered will assist in the lowering action.

In order to avoid the necessity of moving the knee-lever or handle the distance corresponding to the full movement of arms H, I form the arm L with a knee-joint i', so that after the parts have begun their movement the incline of the hanger-irons will force the arms H back. The arm L will partake of a like movement, excepting that the end section thereof constituting the knee-joint will turn on its pivot and extend forward at an angle to the main part of the arm, thus allowing the casting and knee-lever to be unaffected by the final movement of the rock-shaft. It will be readily observed that by a reverse movement of the knee-lever the parts will be restored to normal position. It will also be observed that by reason of the handle or knee-lever being removable one lever serves for both ends of the car, and when not in use at one end the car-platform is left unobstructed.

Having thus described my invention, what I claim is—

1. In combination with a car, hanger-irons movably connected therewith and adapted to automatically move backward into an inclined position under the weight of the fen-

der, a fender or scoop carried by said hanger-
irons, and means for holding said hanger-
irons normally locked and releasing them
when desired, said locking means holding the
5 fender in normal position raised and forward
substantially as described.

2. In combination with a car, hanger-irons,
links extending therefrom to the car-body to
allow the fender to move downwardly and to
10 the rear in moving from inactive position,
the fender or scoop carried by said irons,
means for holding said hanger-irons normally
against movement, and for releasing them
when desired, substantially as described.

15 3. In combination with a car, hanger-irons,
a fender or scoop carried by said irons, a pair
of vertically-arranged links connecting the
front portions of the hanger-irons with the
car, inclined links connecting the rear por-
20 tions with the car, and means for normally
holding the rear ends of said irons against
upward movement and for releasing them
when desired, the said scoop when in normal
position being raised and in forward position
25 substantially as described.

4. In combination with a car, hanger-irons,
a fender or scoop carried by said irons, a pair
of vertically-arranged links connecting the
front portions of the hanger-irons with the
30 car, inclined links connecting the rear por-
tions with the car and means for normally

holding the rear ends of said irons against
upward movement and for releasing them
when desired, said means comprising a rock-
shaft having an arm extending downward 35
and adapted to bear against the upper side
of one of said hanger-irons and means for
rocking said shaft, substantially as described.

5. In combination with a car, the hanger-
irons linked thereto, the fender or scoop car- 40
ried by said irons, the rock-shaft having lock-
ing-arms for said hanger-irons, an arm car-
ried by said rock-shaft and having a knee-
joint, an operating-lever, and a link connec-
tion from said operating-lever to the extrem- 45
ity of said knee-jointed arm, substantially as
described.

6. In combination, the fender arranged to
lie in a raised and forward position when in
normal position, supporting means therefor 50
comprising a plurality of links, locking means
to hold the fender in normal position, and
means for releasing the fender so that it may
move downwardly and to the rear, substan-
tially as described. 55

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

GEORGE A. PARMENTER.

Witnesses:

HENRY E. COOPER,
WM. F. HALL.