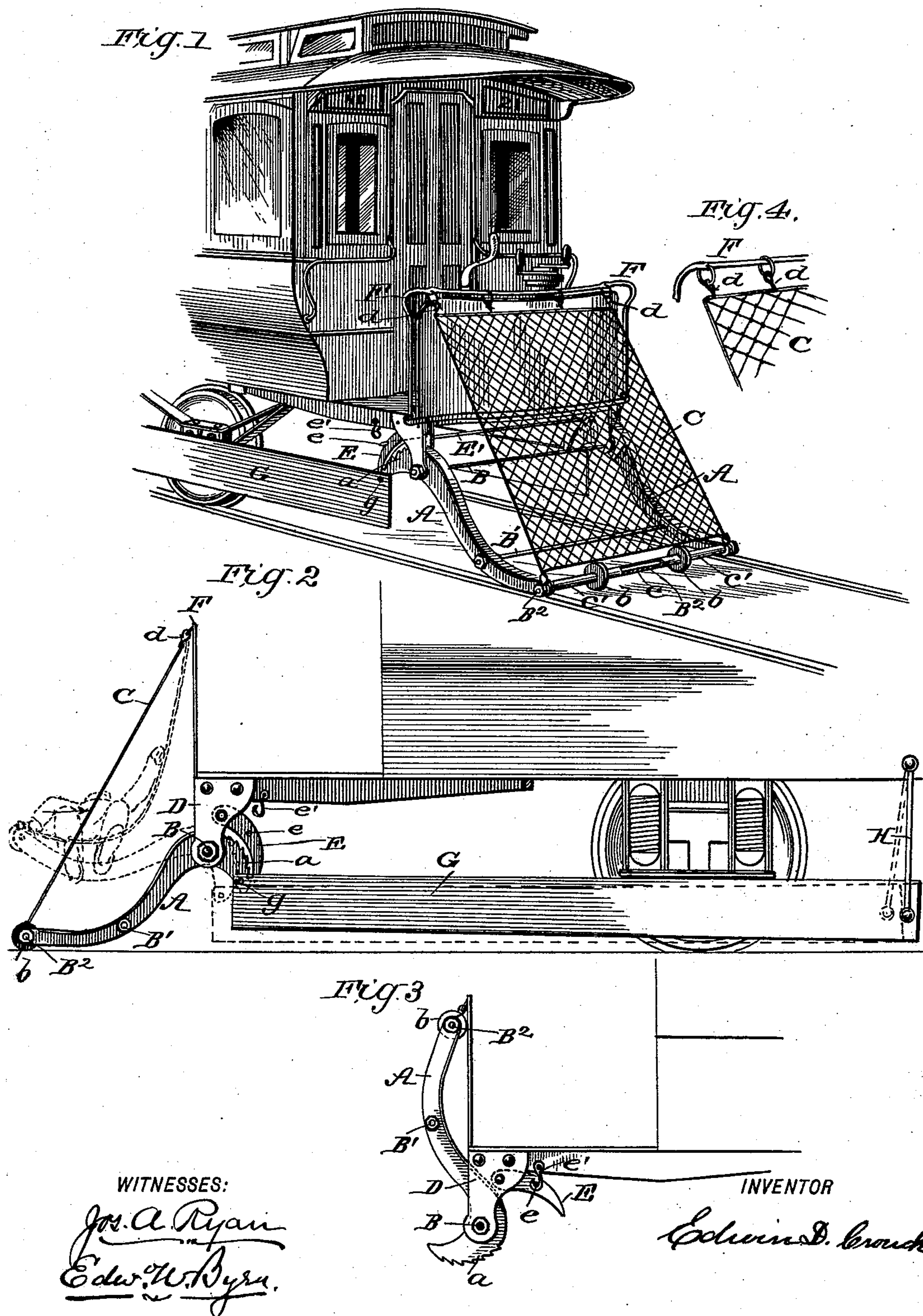


(No Model.)

E. D. CROUCH.
PICK-UP CAR FENDER.

No. 540,485.

Patented June 4, 1895.



UNITED STATES PATENT OFFICE.

EDWIN D. CROUCH, OF WASHINGTON, DISTRICT OF COLUMBIA.

PICK-UP CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 540,485, dated June 4, 1895.

Application filed March 28, 1895. Serial No. 543,442. (No model.)

To all whom it may concern:

Be it known that I, EDWIN D. CROUCH, a citizen of the United States, residing at Washington, District of Columbia, have invented a new and useful Pick-Up Car-Fender, of which the following is a specification.

My invention is in the nature of an improved car fender of that type which is designed to pick up and safely sustain and carry along any person who may be struck thereby.

It relates to that form of fender in which an inclined flexible apron is held by means of pivoted arms, connected thereto at their front ends in a position near the road bed, while the upper end of said apron is fixed to and held by an elevated attachment to the car.

My invention consists in the peculiar construction and arrangement of parts whereby the operation of picking up a person is rendered more safe and certain and the pick-up frame is made more sensitive in its action by a counter-balance attachment made in the form of a secondary fender, as hereinafter more fully described with reference to the drawings, in which—

Figure 1 is a perspective view of the end of a car with my fender attached in operative position. Fig. 2 is a side view of the same, showing in dotted lines the position of the fender in picking up a body. Fig. 3 is a side view showing the fender turned up and out of use, and Fig. 4 is a detail showing the connections for the upper end of the apron.

In the drawings, A, A, represent the lever arms which are hung upon a fulcrum rod B, rigidly sustained in hangers D, fastened to and depending from the lower side of the end of the platform of the car.

This fender is designed to be applied to any form of car, and these hangers D may be varied in their shape and connections to adapt them to the framing of different makes of car. The lever arms are connected by cross rods B' and B² so as to form a frame work and act together, and these rods are detachably secured to the arms by means of threaded ends and nuts, or they may be permanently connected by riveting or otherwise. The rod B² may also be made in one piece with the side arms A A. The outer ends of the lever arms when in their lowermost position approach

very closely the road bed at points just above the rails, but are kept out of contact therewith by means of wheels or rollers *b, b*. The position of these wheels on the axial rod B² may be varied to make the space between them greater or less to accommodate the doors of hatchways or other obstructions on the road bed, which vary in width on different roads, and for this purpose I merely employ sectional tubes *c c' c'* of different lengths which may be removed from the axial rod B² and replaced by others which have a longer or shorter middle section, and shorter or longer outer sections, said tubes acting as spacing sleeves. To the outer ends of the lever arms is suitably attached the lower end of the flexible apron C which may be made of netting, woven fabric, leather or other flexible material. This apron when set for use normally occupies an inclined position, its upper end being detachably fastened by snap hooks *d d* to rings in the rail of the dash board of the car, see Fig. 4, or other elevated point of attachment.

On the ends of the lever arms A in rear of their fulcrum are formed curved segments *a* provided with upwardly pointing ratchet teeth adapted to be engaged by pawls E which are hung within the hangers and gravitate upon the curved ratchet segments. To secure the simultaneous action of both pawls in engaging the ratchets, said pawls are coupled together by means of a tie rod E', extending across the car from one pawl to the other. Upon the side of each pawl is arranged a pin or stud *e* adapted to be engaged by a hook *e'* on the platform of the car to hold the pawl up and out of action, as shown in Fig. 3.

G are fender boards, arranged near the road bed, in front of the wheels. These boards are connected in the rear to the car body by hanger rods H, so as to allow a slight longitudinal movement, and their front ends are pivoted to the rear ends of the lever arms at *g* and are sustained thereby. The weight of the front ends of the boards is insufficient to lift the arms A, but serves as a counterbalance for said arms to render them more sensitive in rising when an object strikes the apron C.

The operation of my invention is as follows: When the fender is down in its operative po-

sition, as shown in Figs. 1 and 2, whenever an object, such as the body of a person, is struck thereby, the force of the impact on the apron causes it to bend and shorten its reach, as shown in dotted lines in Fig. 2, and thus lifts the outer ends of the lever arm, and at the same instant the gravitating pawls E drop into the ratchet teeth and hold the lever arms up to the highest position which they attain. The arms and apron now form a self-supporting cradle that sustains and carries along the person safe from all danger. If it happens that the person is received on one edge of the apron, or rolls off in any convulsive effort to help himself as is liable to occur with an intoxicated person, such rolling off the side is relieved of its dangers by the guards G which, when the arms A are lifted and caught by the pawls, drop to a position close to the road bed, and throw the person away from the front of the wheels without danger of being caught under the guard boards.

The advantages of my invention are that the person is neither injured by the first impact, nor by the further advance of the car over him in case he is not retained by the pick-up cradle.

When the fender is not in use it is turned up and secured, as shown in Fig. 3.

There may be a fender at each end of the car, but its attachments are such as to permit it to be easily and quickly shifted from one end of the car to the other.

It will be observed that the lever arms A are fulcrumed at a point beneath the platform of the car which enables me to get the longest reach of lever with the least projection beyond the end of the car.

In carrying out my invention, I do not confine myself to the exact construction and arrangement of parts shown, as they may in many respects be varied without departing from my invention.

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

1. A car-fender having an uplifting frame in front provided with a rearward extension beyond its fulcrum, and a downwardly moving fender in rear of said frame connected to the rear extension of the said frame to form a counterbalance, substantially as and for the purpose described.

2. A car-fender, consisting of fulcrumed arms on the side, having in rear of their fulcrum toothed segments, and pawls or detents as described, a flexible inclined apron connected to the outer ends of the arms and also to the car at an elevated point, and a fender connected to the arms in rear of their fulcrum, and adapted to be adjusted downwardly when the arms are lifted by impact against the apron, substantially as shown and described.

3. A car-fender consisting of a pick-up frame fulcrumed to the car by hangers and extending in rear of its fulcrum, a fender arranged longitudinally at the side and extending in front of the wheels, and connected at its forward end to the pick-up frame in rear of its fulcrum, and supported thereby so as to act as a counterbalance therefor, and hanger rods connecting the rear end of the fender to the car, substantially as and for the purpose described.

4. A car fender, having the lower front portion of its frame work composed of an axial cross rod, wheels journaled thereupon, and detachable spacing tubes arranged between the wheels upon the axial rod for varying the width between said wheels, substantially as and for the purposes described.

EDWIN D. CROUCH.

Witnesses:

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