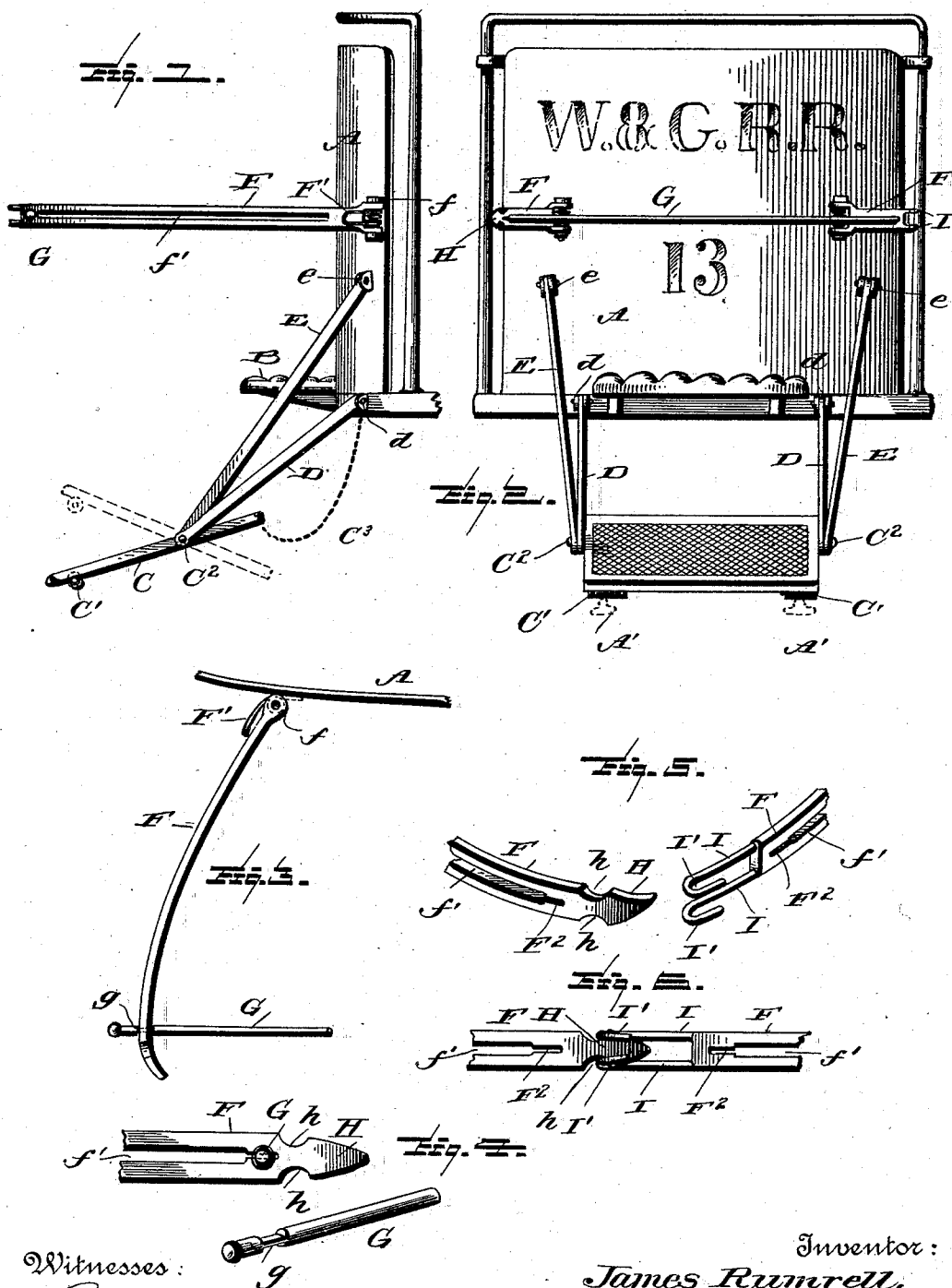


J. RUMRELL.
CAR FENDER.

Patented Aug. 21, 1894.



Witnesses:

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UNITED STATES PATENT OFFICE.

JAMES RUMRELL, OF BOSTON, MASSACHUSETTS.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 524,841, dated August 21, 1894.

Application filed April 16, 1894. Serial No. 507,755. (No model.)

To all whom it may concern:

Be it known that I, JAMES RUMRELL, a citizen of the United States, residing at Boston, in the county of Suffolk, State of Massachusetts, have invented certain new and useful Improvements in Car-Fenders, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in car fenders, and it has for its objects among others to provide a simple fender applicable to any car and by which the liability of injury to a person struck thereby is reduced to a minimum.

It has for a further object to provide such a construction that the person struck will be picked up and landed on a seat provided for the purpose and at the same time means will be actuated to embrace his body and hold him within their grasp and prevent the person from being thrown off the seat or from the embrace of the said means. A pivoted platform or rest is supported from the end of the car to travel upon the rails and above this platform is affixed to the end of the car a seat, while upon a higher plane are spring-actuated hinged arms normally held open by a rod or analogous means in position to be struck by the object on the track and as the said rod is struck the arms are closed and automatically locked. Thus the object is thrown upon the seat and the arms closed around it and the arms being locked the object cannot get away therefrom until they are unlocked.

Other objects and advantages of the invention will hereinafter appear and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a side elevation of the end portion of a car equipped with my improvements. Fig. 2 is a front elevation of the same with the hinged arms shown in their open position. Fig. 3 is a detail in top plan showing one of the hinged arms and a portion of the spreading rod. Fig. 4 shows in detail, in elevation and perspective, a portion of one of the hinged arms and the spreading rod. Fig.

5 is a perspective view of the interlocking ends of the hinged arms. Fig. 6 is a front elevation of the said arms interlocked.

Like letters of reference indicate like parts throughout the several views.

Referring now to the details of the drawings by letter, A designates the end of a car to which is affixed a seat B which may be held thereto in any suitable manner and arranged at any desired height, but preferably in about the position shown.

C is a platform or foot-rest; it may be of any desired size and material, being shown as of a reticulated medium so as to allow the dirt to readily drop therefrom; it is shown as provided with rollers C' adapted to travel upon the rails A', see Fig. 2, and it is supported by the arms D which are pivotally connected at their upper ends on the front end of the platform of the car as shown at d and by the longer divergent arms E the upper ends of which are pivotally connected as at e with the front A of the car as shown in Figs. 1 and 2. The lower ends of these two sets of supporting arms are pivotally held on the pins or projections C² of the foot-rest as seen in Figs. 1 and 2, these pins or journals being by preference located at a point to the rear of the transverse center line of the foot-rest so that normally the foot-rest will incline forward and downward as seen in Fig. 2 and in full lines in Fig. 1, being thus held by its own weight; it may be prevented from going too far in the opposite direction (that shown by dotted lines in Fig. 1) when weight is placed thereon, by a chain C³ or any other suitable device. By thus keeping the front end of the foot-rest down there is no liability of its riding over any object on the track.

F are curved arms hinged as at f to some suitable portion of the car, the hinges being any preferred form of spring hinges, the spring F' of which is seen in Figs. 1 and 3. These arms are provided with the slots f' extending horizontally lengthwise of the arms as seen best in Figs. 1, 5 and 6, and at their front ends terminating in the contracted portions F² as seen best in Figs. 4, 5 and 6. In order to hold these arms in their open position as shown in Figs. 1 and 2 I provide the rod G which is of a length sufficient to hold the arms in their outermost position; this rod

is provided near each end with a portion cut away upon opposite sides to form the thin portion *g* as seen best in Fig. 4, which is of a size to fit just a little loosely in the contracted portion of the slot in the arm in which it rides. The main portion of the rod is of a diameter slightly less than the slot *f'*; thus when the thin portions of the rod are disengaged from the contracted portions of the slots the arms may close through the medium of their springs, the rod sliding in the slots *f'* of the arms without interfering with the closing of the arms.

In order that the arms *F* may be automatically locked in their closed position as they are forced together by their springs when the spreading rod is disengaged I provide the free end of one of the said arms with an arrow-head portion *H*, and upon the free end of the other arm is carried the spring fingers *I* the free ends of which are bent upon themselves to form the hooks *I'* as seen best in Fig. 5; as the arms come together the arrow-head forces itself in between the arms *I* till its broadest portion has passed, when the arms or fingers spring together and in the recesses *h* of the arrow-head end of the arm as seen in Fig. 6 and thus the arms are automatically locked against separation from ordinary circumstances. They can be separated when desired by springing the fingers *I* apart till the head may be removed.

With the parts constructed and arranged substantially as above set forth the operation is as follows:—As shown in Figs. 1 and 2 the device is in condition for operation, the arms being in their outermost position and the rod engaged with its reduced portions in the contracted portions of the slots of the arms. Now, if a person be on the track the foot-rest will strike him and lift him up and as his weight is placed on the foot-rest it will tilt rearward and the person will be thrown upon the seat; as the body of the person strikes the spreading rod *G* the latter will be moved inward toward the car and the reduced portions of the rod pushed out of the contracted portions of the slots in the arms, when the springs of the hinges of said arms will cause the arms to close and as they come together the arrow-head end of the one arm will engage the spring fingers of the end of the other arm and the ends of the arms will be automatically locked as hereinbefore described. It will thus be seen that not only is the person picked up without injury but he will be

held after being picked up so that he cannot fall under the wheels, and in case the car goes along for a considerable distance without being stopped he can make himself comfortable on the seat.

Modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

What is claimed as new is—

1. A car fender provided with spring-actuated grasping and retaining devices, the latter being mounted at the ends to slide in the arms of the fender as set forth.

2. A car fender provided with automatically locking grasping and retaining devices, the latter being mounted at the ends to slide in the arms of the fender as set forth.

3. In a car fender, the combination with spring-actuated hinged grasping and retaining arms, of a spreading device for normally holding said arms open, said devices being rigid throughout its length and mounted for sliding movement in the arms as set forth.

4. The combination with hinged arms having slots with contracted end portions, of a rod adapted to slide in said slots and having reduced portions near its ends, substantially as and for the purpose specified.

5. The combination with hinged spring-actuated arms having slots with contracted portions, and with interlocking ends, of a rod mounted to slide in said slots and having reduced portions near its ends, as set forth.

6. The combination of a pivoted foot-rest, and hinged arms with interlocking ends, with means for normally keeping said arms in their open position, as set forth.

7. The combination of a pivoted foot-rest, a seat, spring-actuated hinged arms, and means for normally keeping said arms in their open position, as set forth.

8. In a car fender, the combination with the pivoted foot-rest provided with rollers, of a seat on the end of a car, curved arms hinged on spring hinges and having slots, and a rod for normally holding said arms open, said arms having their free ends provided with automatically-locking devices, substantially as specified.

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

JAMES RUMRELL.

Witnesses:

JOHN MUIR,
JOHN V. SYMMONS.