No. 853,728. PATENTED MAY 14, 1907.

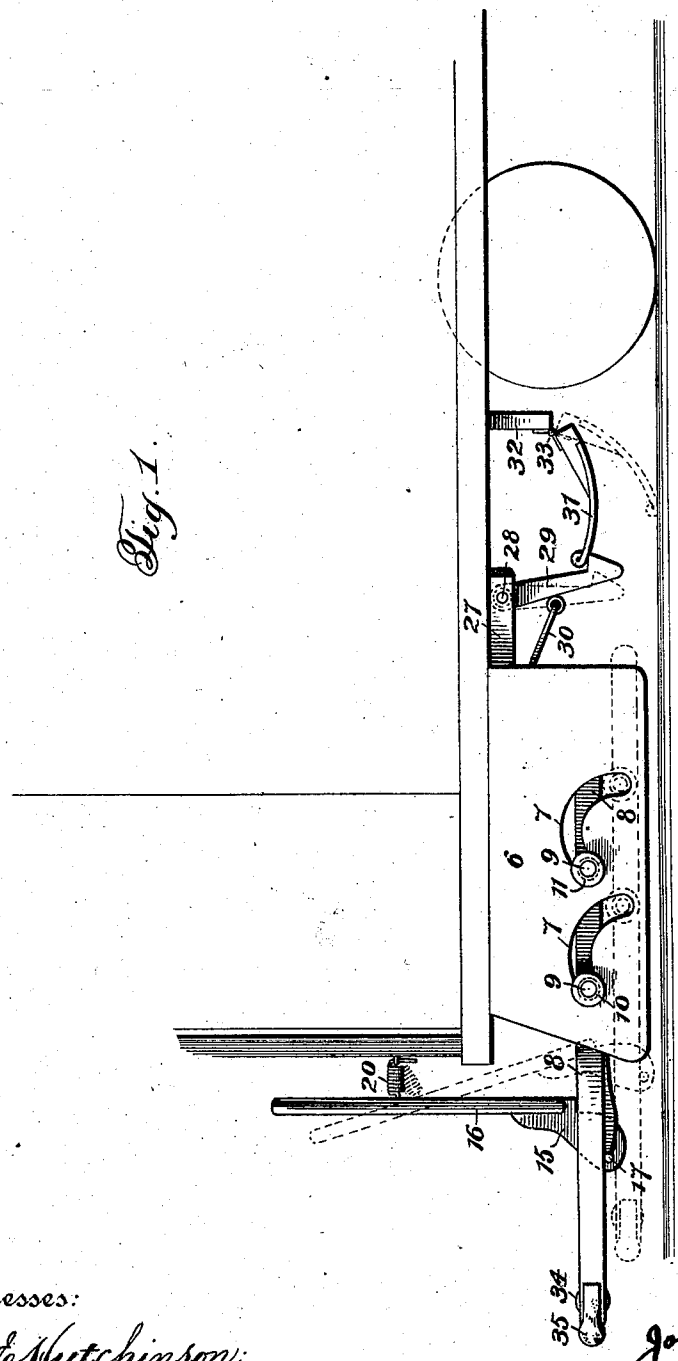
J. E. PALMER.

FENDER.

APPLICATION FILED MAR. 4, 1907.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses:
Jas. E. Hutchinson.
G. C. McNeil

Inventor:
John E. Palmer,
By Roy D. C. Burnbaum, Attorney.

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2 SHEETS—SHEET 2.

Fig. 2.

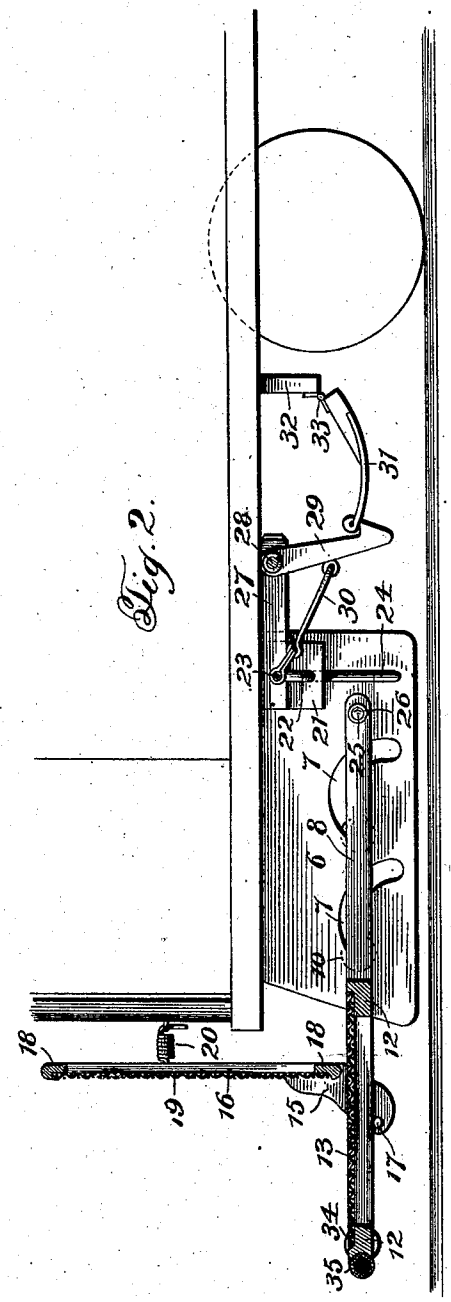


Fig. 4.

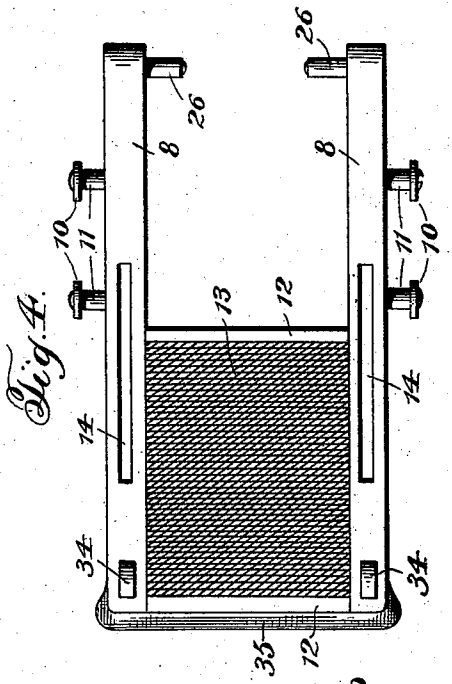
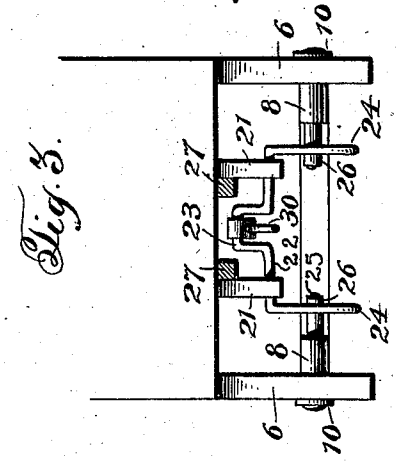


Fig. 5.



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Jas. E. Hutchinson:

G. E. McNeil

Inventor:

John E. Palmer,

By Royal E. Burnham, Attorney:

UNITED STATES PATENT OFFICE.

JOHN E. PALMER, OF WAYNE, MAINE.

FENDER.

No. 853,728. Specification of Letters Patent. Patented May 14, 1907.

Application filed March 4, 1907. Serial No. 360,519.

To all whom it may concern:

Be it known that I, JOHN E. PALMER, a citizen of the United States, residing at Wayne, in the county of Kennebec and State of Maine, have invented certain new and useful Improvements in Fenders, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention provides a fender for cars and other vehicles which is so mounted that, when it comes in contact with any object in front of the vehicle, its forward end is automatically depressed to scoop up the object and the fender is thereafter held in such position that the object contained therein is not apt to roll under the fender and be encountered by the wheels. Further, a wheel-guard is automatically depressed when the fender strikes the object.

Other novel features are provided by the invention which will be set forth hereinafter.

When read in connection with the following description, the details of construction and arrangement of parts contemplated by this invention will be apparent from the accompanying drawings, forming part hereof, wherein a preferable embodiment of the invention is disclosed, for purposes of illustration.

Like reference-characters refer to corresponding parts in the several views of the drawings, of which—

Figure 1 is a side view of a portion of a car having my fender attached thereto, the fender being shown in full lines in its forward position and in dotted lines in its retractive position; Fig. 2 is a longitudinal sectional view; Fig. 3 is a rear end view; and Fig. 4 is a plan view.

Referring more particularly to the drawings, 6 designates side pieces hung to the car in such manner that they will be outside the line of the rails, and in each of pieces 6 are formed slots 7 which are curved upwardly and downwardly from front to rear.

Beams or members 8 are hung inside of and adjacent to sides 6 by studs 9 projecting through slots 7 and having heads 10 of greater diameter than the width of the slots whereby the studs are held therein. On the studs are rollers 11 to reduce friction in the movements of the studs in the slots. Beams 8 extend forwardly from the front of the car, are connected by cross-members 12, and a net 13 is hung on the beams and cross-members whereby a fender is formed.

Longitudinally-disposed slots 14 are formed in beams 8 intermediate their ends, and through these slots are passed the narrowed ends 15 of uprights 16, pins 17 being passed through the extremities of ends 15 to hold the same in the slots. Uprights 16 extend in front of the dashboard of the car, and are connected by cross-members 18, a net 19 being suspended on these uprights and cross-members. Uprights 16 are detachably connected with the dashboard of the car by spring links 20.

Suspended from the under part of the car are hangers 21, in which is journaled a shaft 22, formed with a centrally-disposed crank 23 and depending end portions 24, which latter are arranged to be engaged by studs 25 on beams 8, the studs carrying rollers 26 to reduce friction.

Attached to the under side of the car are longitudinally-disposed beams 27, in which is journaled a shaft 28, and on this shaft is pivoted a latch 29, which is connected with crank 23 by a link 30. This latch is arranged to normally engage a pivoted wheel-guard and hold the guard in a raised position.

Wheel-guard 31 is hung on the lower edge of a member 32 attached to the car, hinges 33 being attached to the forward surface of member 32 and the guard for this purpose. When the guard is permitted to fall, its backward movement is limited and engagement with the wheels prevented by the engaging edges of the member and guard.

When in use, studs 9 are normally positioned in the forward depressions of slots 7, whereby the forward end of the fender is held from the ground or track; but, when the fender comes in contact with a person or other object, such engagement throws the fender backwardly, and the studs move in the slots. The upward curve of the rear slot on each side is greater or higher than that of the forward ones, and, therefore, as the studs move backwardly therein, the forward end of the fender will be caused to dip and scoop up the object; and, as the studs move farther back into the rear depressions of the slots, the fender will be brought to a substantially horizontal but to a somewhat lower position close to the rails. Spring links 20 and slots 14 in which the narrowed ends 15 of uprights 16 are movably disposed will permit movement of the fender without interference from these parts.

The retractive movement of the fender will

cause studs 25 to move depending portions 24 and through the instrumentalities of shaft 22, crank 23, and link 30 to trip latch 29 and permit wheel-guard 31 to drop.

Rollers 34 are journaled in the forward end of the fender to reduce friction thereof with the rails when in the act of scooping, and a resilient buffer 35, of rubber or other suitable material is attached to the front edge of the fender to ease the blow thereof against any object that may be struck.

When the fender is not in use, the upwardly extending portion of the fender may be lowered upon the fender proper by release of spring links 20, and the fender shoved into retractive position in the rear depressions of the slots where it is less in the way than when in extended position.

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

1. The combination with a vehicle, of depending side pieces having slots therein curving upwardly and downwardly from front to rear, studs movable in said slots, and a fender attached to said studs.

2 The combination with a vehicle, of depending side pieces having slots therein curving upwardly and downwardly from front to rear, studs carrying rollers movable in said slots, and a fender attached to said studs.

3. The combination with a vehicle, a wheel-guard thereon, and means whereby said wheel-guard is tripped, of side pieces on said vehicle and having slots therein curving upwardly and downwardly from front to rear, a fender, studs on said fender and movable in said slots, and means on said fender whereby said tripping means is operated.

4. The combination with a vehicle, a retractive fender, and a wheel-guard thereon, of a crank-shaft on said vehicle and arranged to be engaged by said fender upon its retractive movement, a latch normally holding said wheel-guard in raised position, and a link connecting said crank-shaft and said wheel-guard.

5. A vehicle-fender comprising forwardly-extending slotted beams, uprights having their lower ends movably disposed in the slots, and means whereby said uprights are connected with the vehicle..

6. The combination with a vehicle, of a fender retractively mounted thereon comprising forwardly-extending beams having slots therein, uprights having reduced ends movably disposed in the slots, and spring connections between said uprights and said vehicle.

7. The combination with a vehicle, of depending side pieces each having a forward slot therein curving upwardly and downwardly from front to rear and a rear slot therein curving upwardly to a point higher than the course of the forward slot and then downwardly, studs movable in said slots, and a fender attached to said studs.

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

JOHN E. PALMER.

Witnesses:
TUDER G. JENNINGS,
ALFRED S. SMITH.