(No Model.)

S. J. HARRIS.

CAR FENDER.

No. 572,752. Patented Dec. 8, 1896.

Fig. 1

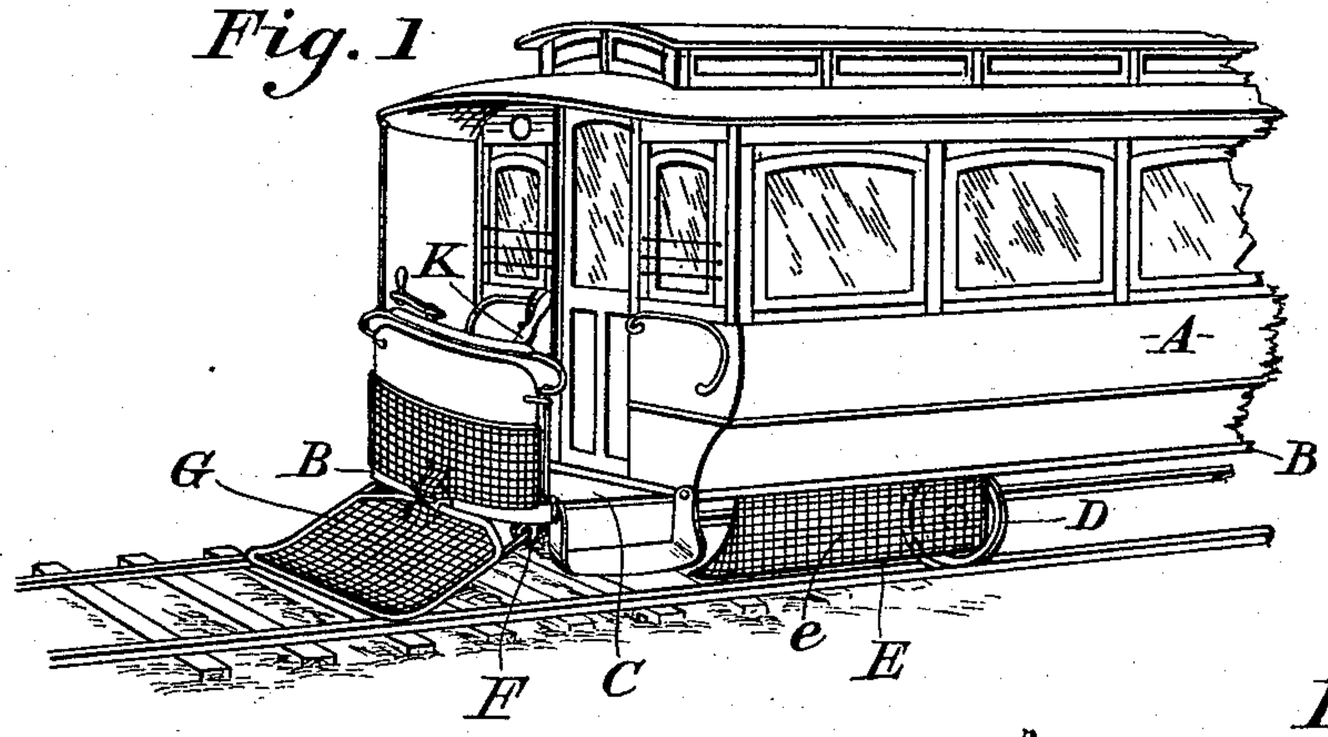


Fig. 7

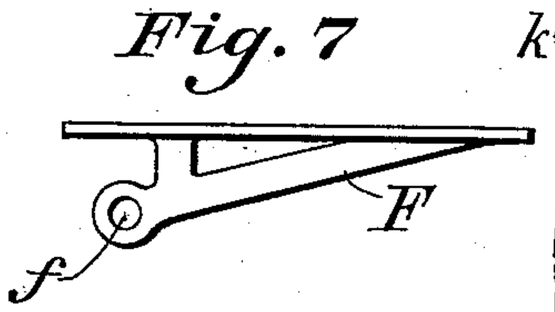


Fig. 2

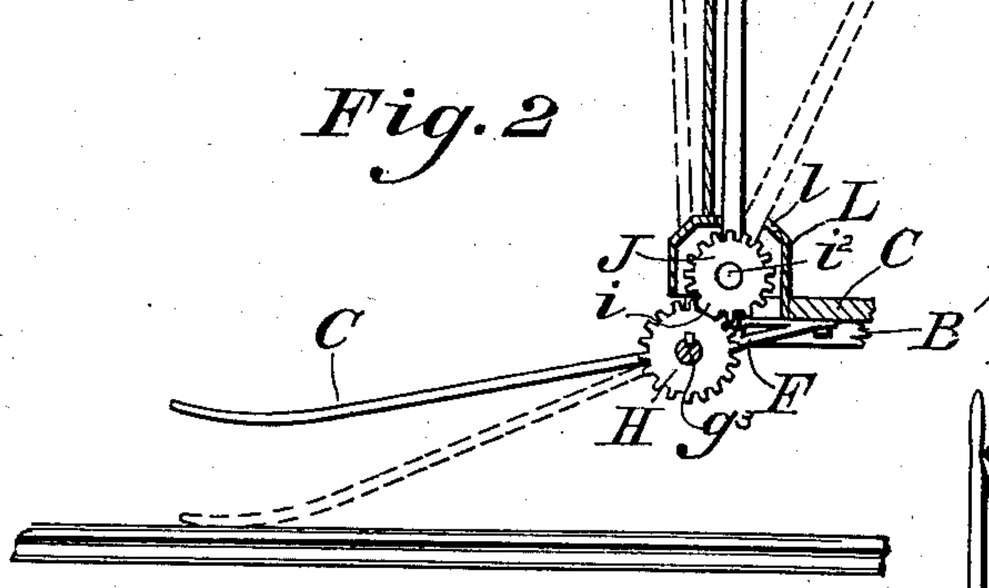


Fig. 3

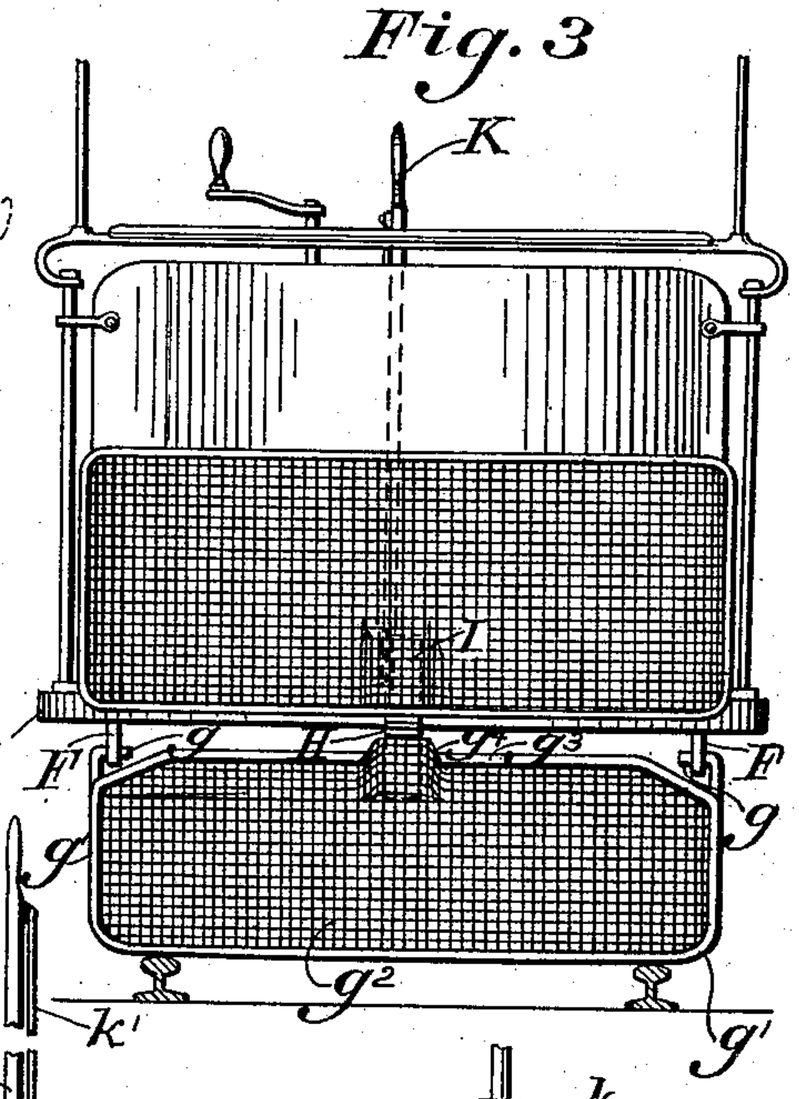


Fig. 4

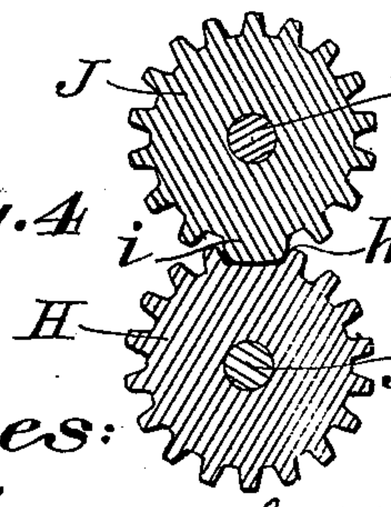


Fig. 5

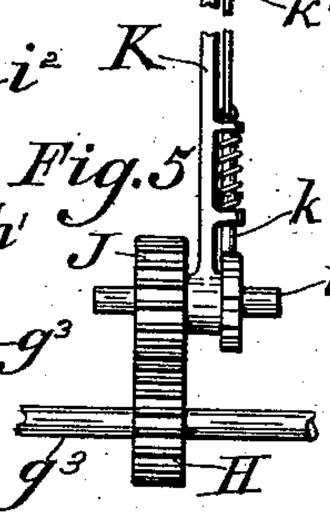
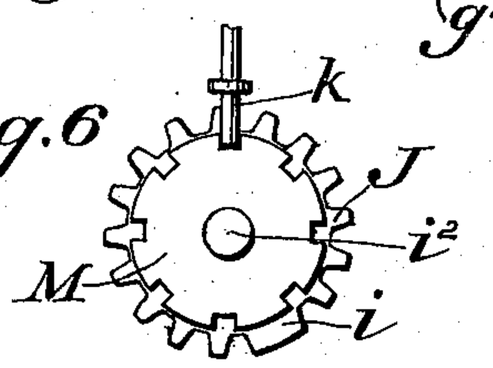


Fig. 6



Witnesses:

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UNITED STATES PATENT OFFICE.

SAMUEL JAMES HARRIS, OF MILLVILLE, MASSACHUSETTS.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 572,752, dated December 8, 1896.

Application filed March 28, 1896. Serial No. 585,149. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL JAMES HARRIS, a citizen of the United States, residing at Millville, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Wheel-Fenders and Folding Scoops, of which the following is a specification.

My invention relates to a wheel-fender and folding scoop for street-cars, which will serve as a shield or casing to prevent the forward end and wheels of the car from running over any one standing upon the track or when getting on or off of the car, and also provide a scoop which may be operated in a certain and skilful manner to pick up any person or thing either standing or lying on the track by a simple lever and gear mechanism; and the improvement consists in certain novel constructions of parts and in novel means for operating the scoop hereinafter particularly described with reference to the accompanying drawings, in which—

Figure 1 is a perspective view of the forward end of a street-car with my improved fenders and scoop attached; Fig. 2, a longitudinal sectional elevation of the folding scoop and dashboard-fender with the scoop shown by full lines in a horizontal position, by dot lines in a lowered position, and by broken lines in a raised position; Fig. 3, a front elevation of the car with the scoop lowered to its position on the track; Fig. 4, a central vertical sectional elevation of the operating gear-wheels; Fig. 5, a rear elevation of raising and lowering gears and operating-lever connections. Fig. 6 is a side elevation of the ratchet-wheel and upper gear-wheel shown in Fig. 5, and Fig. 7 an enlarged elevation of the pendent bracket which forms the bearing-support for the fender.

The car A has a frame B and platform C of the usual pattern and is supported at its ends upon wheels D, which are ordinarily placed under the overhanging body of the car and back from the platform a short distance, leaving an open exposed space between the wheels and platform-steps into which a person may be thrown or accidentally fall in getting off and on the car or in standing near the track. This space I cover by a fender consisting of a cast-iron frame E, which is bolted to the under side of the frame B, and is fitted around the wheels in close proximity thereto at the rear end and at the forward end abuts against the rear side of the platform-steps and has a plow-shaped forward extremity and outwardly-concave vertical cross-section which will act effectually in lifting from the track or the surface of the ground any object which may be brought against it.

The frame E may be covered with sheet-metal wire-netting or other metal basket-work *e*, which will be sufficiently light and strong.

To the forward end and upon each side of the car-frame B is bolted a pendent bracket F, having bearings *f*, into which is fitted inwardly-projecting pins *g* upon the ends of a frame g', upon which is fitted a screen, sheet metal, or metal basket-work g^2, which thus provides a hinged scoop G, the rear end of which is pivoted to the forward end of the car-frame B by means of the bracket F, and the forward end of which is turned up like a shovel to lie down close to the track when in its lowered position and to turn up when the scoop is at its raised horizontal or nearly horizontal position and provide a secure and safe shelf for a body to rest upon, the upturned end serving to prevent anything upon the scoop from rolling off when in this position.

The middle of the top cross-bar g^3 of the frame carries a gear-wheel H, which passes through a slot-opening g^4 of the scoop and is covered on the top and sides by sheet or screen metal hood I, extending from the front of the dashboard or preferably extending from a sheet-metal screen or basket-work fender, which is secured to an exterior frame nearly like that of the scoop and attached to the frame B of the car in front of the dashboard.

The gear-wheel H is mutilated the distance of several teeth and is recessed or cut out, as at h', to receive a corresponding projection *i* of a gear-wheel J, which is also supported upon the frame B above and to gear with the wheel H, and is connected to a hand-lever K, by which means it is revolved. The mutilated portion of the wheel H, carrying the scoop, is in such position relatively thereto that when the scoop is in its approximately horizontal position it is securely locked there by said interlocking recess and projection.

When the car is running in the opposite direction and the scoop is not in use, it is turned up against the dashboard by pushing the hand-lever forward until the teeth of the gear J reëngage with the teeth of the gear H beyond the mutilated portion thereof, as shown by dotted lines in Fig. 2. The gear-wheel J is inclosed by a box L to protect it and having a slot *l* at one side, through which the lever K may be moved. The gear J is secured to a shaft i^2, which has bearings in the sides of the box L, and a notched wheel M, also secured to the shaft i^2, receives a spring-pin *k* upon the lever, which is lifted by a rod and handle *k'* on said lever to allow the said lever to be moved back and forth like a ratchet and pawl to engage the said teeth and move the gear J farther forward than the limited movement of the said lever will permit because of the dashboard, when it will reëngage with the teeth of the gear-wheel H beyond the mutilated portion thereof and turn the scoop up against the dashboard when the car is changed to move in the opposite direction or when for other reasons the scoop is to be lifted completely out of the way.

The operation of the device will be understood from the foregoing description and needs but a short general statement with reference to the hinged scoop and its gearing.

The lever for operating the scoop is placed in the center line of the scoop and platform and exerts its full force directly thereon, thus requiring but a light framework and connection, and the gearing is completely protected, so that any one falling on the scoop will not be caught therein. The scoop normally rests nearly horizontal, as shown by full lines in Fig. 2, ready to be lowered to pick up any object, large or small, upon the roadway, the flat shovel-shaped end of the scoop insuring the most effective action in removing the object without injury from the surface, and when lifted to an approximately horizontal position the shovel-like end of the scoop will be turned up to safely hold the body, as in a cradle. The scoop is moved in its three positions by the gear above described, and by means of the hand-lever operated by the motorman or attendant by drawing the handle toward him the scoop is dropped from the approximately horizontal position to the track and by pushing the lever forward to a vertical position the scoop is again raised to the said horizontal position. By changing the position of the lever upon the ratchet-wheel and drawing it toward him the operator may take fresh hold and lift the scoop to its vertical position. When the scoop is down, it, together with the wheel-fender, protects the entire forward end of the car.

I claim as my invention and desire to secure by Letters Patent—

1. The combination with the platform-frame at the forward end of the street-car, of the hinged scoop, the mutilated gear H, the interlocking gear J and the hand-lever K to place and hold the scoop in an approximately horizontal position, substantially as described.

2. The combination with the platform-frame at the forward end of the street-car, of the hinged scoop, the mutilated gear H, the interlocking gear J, the notched wheel M affixed to the gear J and the hand-lever fitted with a latch or bolt to engage the notches of the wheel M, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name in the presence of two subscribing witnesses.

SAMUEL JAMES HARRIS.

Witnesses:

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WALTER R. RAY.