(No Model.)

A. S. HICKLEY.

TRACK CLEANER.

No. 551,209. Patented Dec. 10, 1895.

Fig. 1.

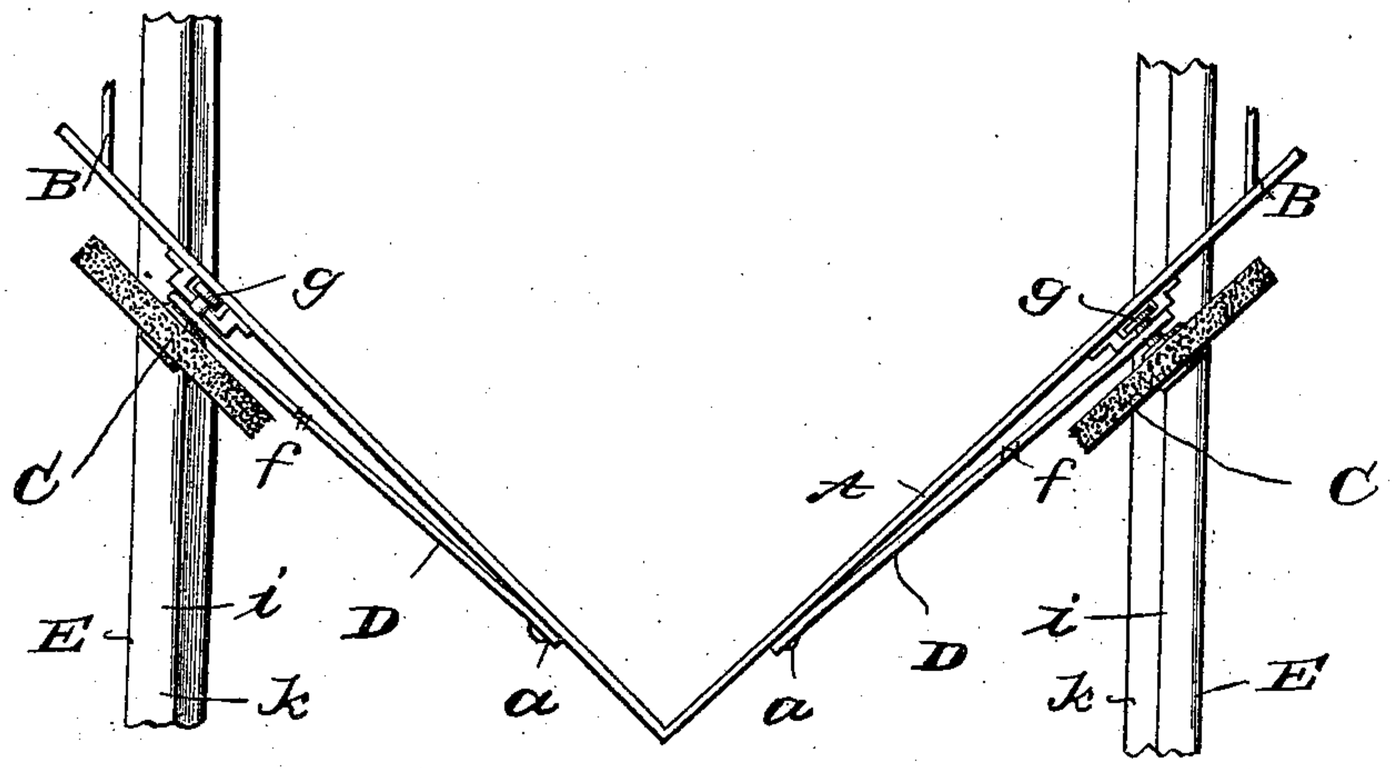


Fig. 2.

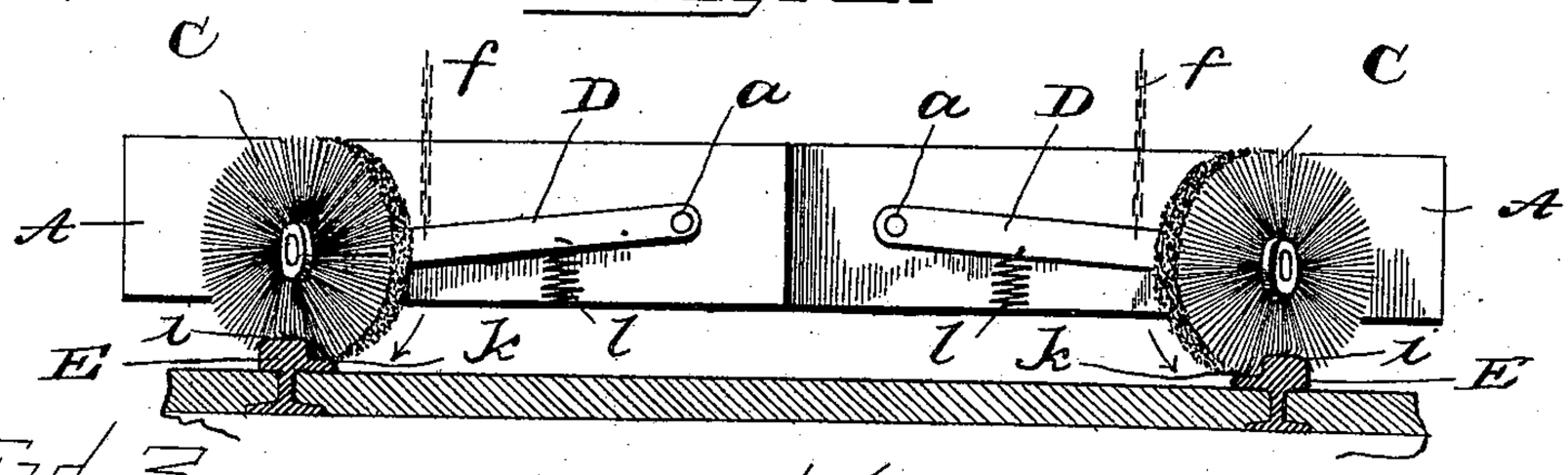


Fig. 3.

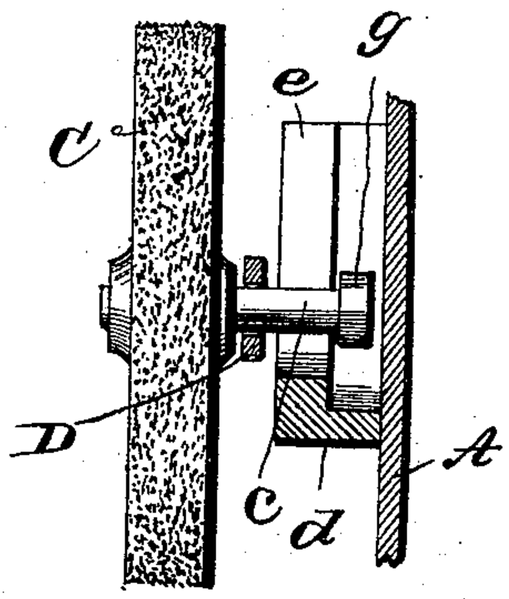


Fig. 4.

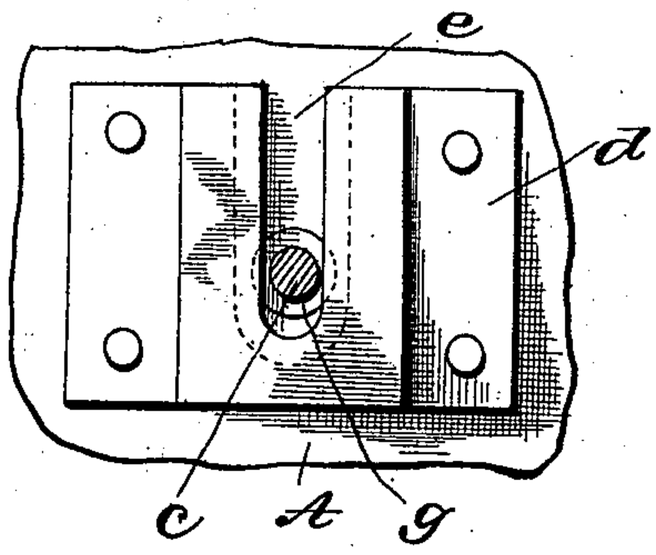
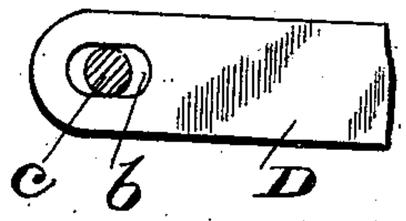


Fig. 5.



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UNITED STATES PATENT OFFICE.

ARTHUR S. HICKLEY, OF ASBURY PARK, NEW JERSEY.

TRACK-CLEANER.

SPECIFICATION forming part of Letters Patent No. 551,209, dated December 10, 1895.

Application filed April 5, 1895. Serial No. 544,610. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR S. HICKLEY, a subject of the Queen of Great Britain, residing at Asbury Park, in the county of Monmouth and State of New Jersey, have invented certain new and useful Improvements in Track-Cleaners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My present invention relates to means for cleaning railway-tracks, especially adapted for use on street-railways; and has for its object certain improvements in construction, which will be fully disclosed in the following specification and claims.

It has heretofore been proposed to clean street-railway tracks by the use of a brush supported upon a horizontal axle, with the brush revolving in a plane parallel with the rail, and also by the use of a circular-head brush supported upon an axle inclined to the plane of the surface of the track, with the bristles of the brush projecting from one side of the head, so that only the outer bristles engage the track; but in the practical use of the brushes described they have clogged with dirt and soon become ineffectual cleaners, and the latter wears only upon a small proportion of the brush, resulting in great waste. These serious defects I have overcome by the device which will now be fully elucidated.

In the accompanying drawings, which form part of this specification, Figure 1 represents a top plan view of part of a street-railway car with my improved cleaner attached; Fig. 2, a front elevation showing the track and roadbed in vertical section; Fig. 3, a vertical section of the guard and the supporting-bracket, and showing the brush and its axle in front elevation; Fig. 4, a front elevation of part of the guard and the bracket, and Fig. 5 a side elevation of the outer end of the brush-supporting bar.

Reference being had to the drawings and the letters thereon, A A indicate the angular end guards, and B B the side guards, of an ordinary electric, cable, or other motor propelled street-car.

C C indicate the brushes, each of which I have shown connected to and supported by the angular end guards A A by means of a bar D, the inner end of which is pivotally secured to the guards by a bolt *a*, and in the outer end of the bar D is an elongated slot *b*, through which the axle or shaft *c* of the brush extends and by which the bar is attached to the axle. The inner end of the axle engages a bracket *d* on the guard and operates in a vertical slot *e* as the brush rises and falls to accommodate any irregularities on the track, and when not required to brush is raised out of engagement with the track by any suitable means, such as the cord or chain *f*, or in any other preferred manner. The inner end of the axle *c* may be provided with a head *g* to prevent its being accidentally detached from the bracket when the brush is not in use. The brushes cross the rails E E diagonally and engage the rails below the surface of the head or tread *i* of the rails and are caused to revolve outward by frictional contact of the brush and the motion of the car, as indicated by the arrows in Fig. 2, and as the wires or bristles of the brush cross the tread of the rail the wires or bristles are bent inward as they strike the inner edge of the head, and the resiliency of the wires causes them to return to their normal position as soon as they rise to the surface of the head of the rail and brush off any foreign matter lying upon the rail, the resiliency of the wires throwing all matter from them and preventing any adherence of dirt thereto.

The brush is held to its work by its own gravity, augmented by the gravity of the bar D, and as the brush wears off circumferentially the slot *e* in the bracket *d* allows the brush to descend and maintain its bite upon the rail and keep the flange *k* and the head *i* of the rail free from dirt or other deposit thereon; or the brush may be held in engagement with the rail by the use of a spring *l*, or other suitable device controlled by the motorman may be employed.

In the practical use of my cleaning device it has been demonstrated that no attention is required to be given to the brush to secure its operation after the brush has been dropped into engagement with the rail of the track and that no dirt adheres to or accumulates upon the wires or bristles, which is due to the angular relation of the brush to the rail and

the spring given to the wires in crossing the rail as they are bent and again straighten out to their normal position in the brush. The brush is revolved by the movement of the car and the frictional contact of the brush with the track, and the entire circumference of the brush is brought into effective use by each revolution of the brush.

Having thus fully described my invention, what I claim is—

1. The combination with a railway-car, of a vertically adjustable and revoluble brush provided with a horizontal axle extending from one side of the brush only and attached to the outer end of a bar which is pivotally connected at its opposite end to the car, the brush being supported to cross the rail of the track at an angle thereto and in frictional contact with the side and upper surface of the head or tread of the rail and rotated by the motion of the car.

2. The combination with a railway-car, of a vertically adjustable and revoluble brush extending diagonally across the rail of the track and in frictional contact therewith, an axle for the brush extending from one side of the brush only and supported in a bracket on the car, and an arm to the outer end of which arm said axle is attached and the inner end of the arm pivotally connected to the car.

3. The combination with a railway-car of a vertically adjustable and revoluble brush having an axle extending from one side thereof, a bracket having a vertical slot with which said axle engages, and a bar engaging the axle at its outer end and pivotally connected at its inner end to the car.

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

ARTHUR S. HICKLEY.

Witnesses:
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