

(No Model.)

T. WAITE.
RAILWAY RAIL SWEEPER.

No. 541,028.

Patented June 11, 1895.

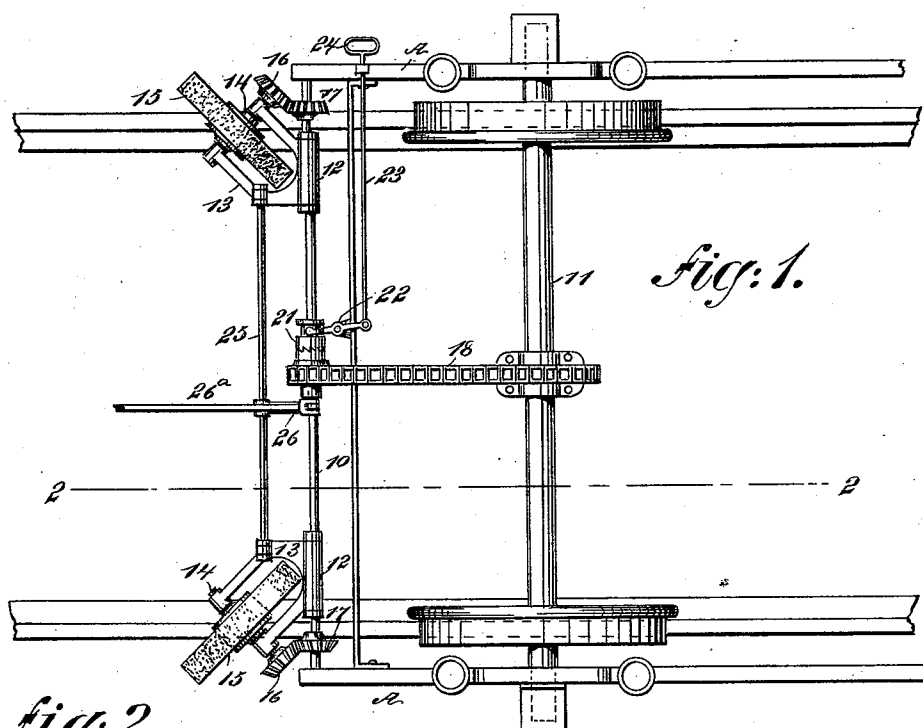


Fig. 1.

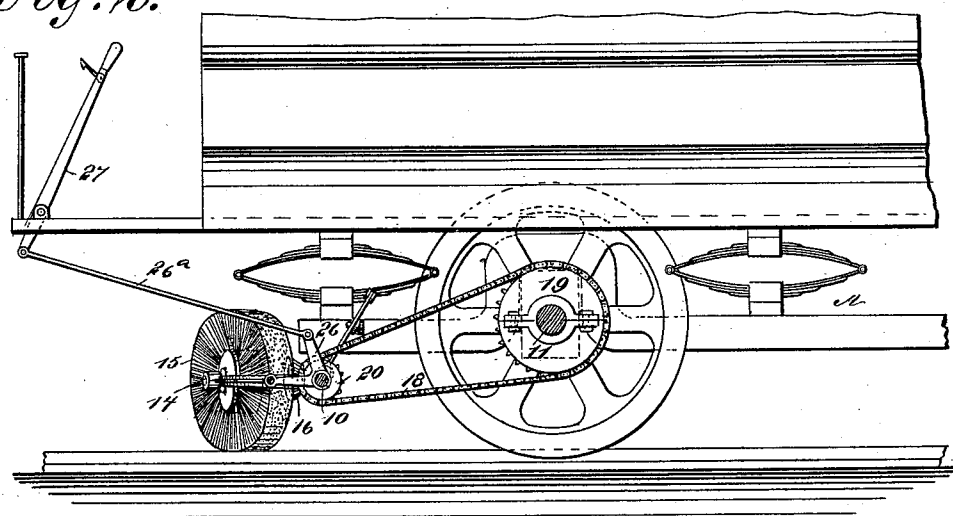


Fig. 2.

WITNESSES:
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THOMAS WAITE, OF CRAMER HILL, NEW JERSEY.

RAILWAY-RAIL SWEEPER.

SPECIFICATION forming part of Letters Patent No. 541,028, dated June 11, 1895.

Application filed November 28, 1894. Serial No. 530,273. (No model.)

To all whom it may concern:

Be it known that I, THOMAS WAITE, of Cramer Hill, in the county of Camden and State of New Jersey, have invented a new and improved Railway-Rail Sweeper, of which the following is a full, clear, and exact description.

My invention relates to an attachment especially adapted for street or tram cars, and the object of the invention is to so apply the brushes to the truck or under portion of the body of the car that said brushes will be under complete control of the driver, motor-man or gripman, and whereby the brushes will be in advance of the forward wheels and may be brought positively in engagement with the rails of the track in such manner as to thoroughly clean the said rails, thereby enabling an electrically propelled car to gain a good contact with the track, and in cars of other types whereby the rails will be kept free from any substances that would tend to cause the wheels to slip.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the attachment and a portion of the forward part of a street-car; and Fig. 2 is a section through the attachment, taken substantially on the line 2 2 of Fig. 1, illustrating a portion of the body of the car in side elevation.

In carrying out the invention a shaft 10 is journaled in the outer end portions of the trucks A of the car, or in an extension of the trucks, or in suitable hangers projected from or attached to the running gear or bottom of the car. This shaft extends from side to side of the car truck, for example, a predetermined distance in advance of the wheels and parallel with the axle 11. Near each end of this shaft a sleeve 12 is loosely mounted, and a substantially U-hanger 13 is formed integral with or attached to each of the sleeves, extending in the direction of and partially over the rails of the track, as is best shown

in Fig. 1. Therefore the hangers are at an angle to the sleeves. In each of these hangers a spindle 14 is journaled, and within each hanger upon each spindle a brush 15, is secured, preferably of the circular type, whereby the brushes when in contact with the rails of the track extend diagonally over the same; and as the brushes are revolved any material that is removed from the rails by said brushes will be thrown to the outside of the track.

Preferably upon the inner end of each brush spindle 14 a beveled gear 16 is secured, and these gears are made to mesh with like gears 17, secured upon the drive shaft 10. The shaft 10 is driven preferably through the medium of a chain belt 18, which is made to pass over a suitable gear 19, secured upon the axle, and a pinion 20, loosely mounted on the drive shaft 10. The hub of the pinion 20 is provided with a clutch face adapted to engage with a clutch 21, the latter being splined upon the shaft 10, and a shifting lever 22, is in engagement with the said clutch, the lever being operated ordinarily through the medium of a rod 23, extending out to one side of the car and terminating in a handle 24, preferably of loop formation, in order that the driver or motor-man may through the medium of the rod readily throw the clutch 21 into or out of gear with the pinion 20, and thus cause the driving shaft 10 to revolve or to remain still.

The two hangers 13 are connected by a rod 25, and an elbow lever 26 is loosely mounted on the said shaft 10, one of its members being attached to the connecting rod 25 while the other member is pivotally connected with a link 26^a, which in its turn may be connected with a hand lever 27 extending up through the platform of the car. Through the medium of this lever 27 the brushes may be elevated or thrown downward to engage with the rails of the track.

When a sweeper of the above description is attached to electric cars, or any kind of street cars that require friction on the rails, the brushes will enable them to run as regularly during a snow storm as at any other time. This rail sweeper is not intended to supplant the regular track sweeper, but is intended to be used principally as an auxiliary thereto, and serves to clear the rails from any

snow or ice that may have been deposited thereon after the regular sweeper has passed over the track, and will also remove any particles that may escape the regular sweeper.

5 The brush is likewise very useful in removing moisture from the rails after a slight rain.

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

10 1. The combination with the running gear of a car and a drive shaft carried by the car and driven from the axle, of hangers pivotally supported on the drive-shaft, the brushes revolubly mounted in said hangers

15 and having a forward and outward inclination, whereby they cross the track rails in a diagonal direction, and a lifting device for raising and lowering the brushes, substantially as set forth.

20 2. The combination with the running gear of a car, of a rotatively mounted shaft and adapted to be driven from the car axle, a hanger loosely mounted on said shaft, a brush rotatively mounted in the hanger, gearing

25 for driving the brush from said shaft, and means for raising and lowering the hanger, substantially as set forth.

3. The combination with the running gear of a car, of a drive shaft journaled transversely in the gear and adapted to be driven from the 30 car axle, a hanger loosely mounted on the end of said shaft and provided with arms extending diagonally to the line of the track, a brush rotatively mounted in the said arms, gearing for driving the brush from said shaft 35 and means for raising and lowering the hanger, substantially as set forth.

4. The combination with the running gear of a car, of a drive shaft journaled in the gear and adapted to be driven from the axle, 40 hangers mounted loosely on opposite ends of said drive shaft, brushes rotatively mounted in the said hangers, a rod connecting the hangers together, gearing for driving the brushes from the drive-shaft, a rock-lever 45 pivoted on the drive-shaft with one arm connected to the rod which connects the hanger, and an operating lever fulcrumed on the car and connected to the other end of said rock-lever, substantially as set forth.

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Witnesses:

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