

(No Model.)

J. W. WARREN.
TRACK CLEANER.

No. 516,714.

Patented Mar. 20, 1894.

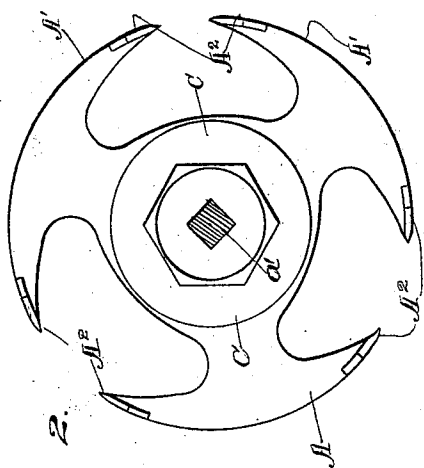


Fig. 2.

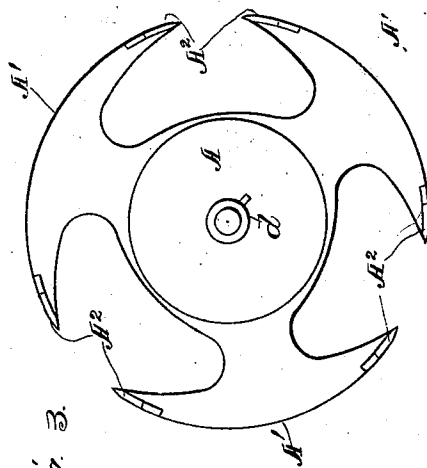


Fig. 3.

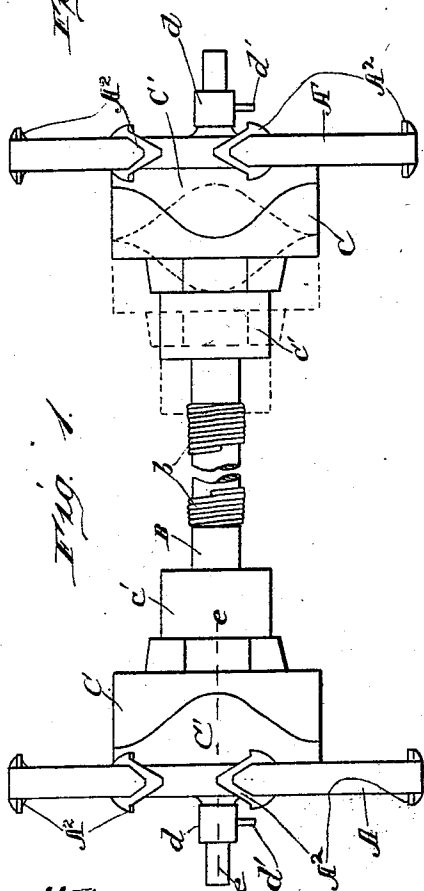


Fig. 1.

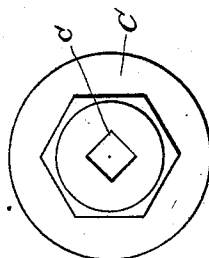


Fig. 6.

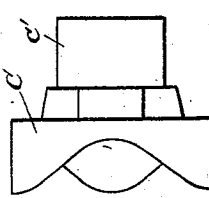


Fig. 5.

Fig. 4.

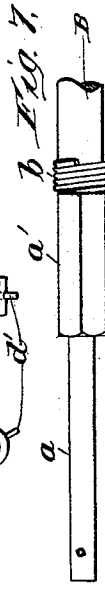
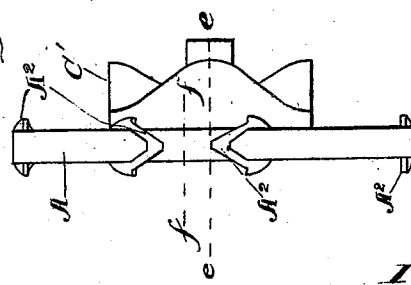


Fig. 8.

Fig. 9.



Fig. 10.

Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN WILLIAM WARREN, OF SYDNEY, NEW SOUTH WALES.

TRACK-CLEANER.

SPECIFICATION forming part of Letters Patent No. 516,714, dated March 20, 1894.

Application filed June 24, 1893. Serial No. 478,732. (No model.) Patented in New South Wales April 28, 1890, No. 2,164.

To all whom it may concern:

Be it known that I, JOHN WILLIAM WARREN, residing at No. 58 Pitt Street, in the city of Sydney, New South Wales, have invented certain new and useful Improvements in a Track-Cleaner or a Device or Apparatus for Cleaning Out the Grooves of Tram and other Rails, (for which I have received Letters Patent in the Colony of New South Wales, No. 2,164, dated April 28, 1890,) of which the following is a specification.

This invention relates to improvements in track-cleaners, or more accurately speaking, to a device for cleaning out the grooves of tram or other rails, that is, the groove between the inner or guard-rail, and the rail upon which the wheels run; and it consists in certain peculiarities of the construction, novel arrangement, and operation of the various parts thereof, as will be hereinafter more fully set forth and specifically claimed.

The objects of my invention are first, to provide a device for the above named purpose, which shall be simple and inexpensive in construction, and effective in operation; second, such a device which may be readily attached to a tram-car or other vehicle adapted to run on the rails, and will operate as a cleaner when the vehicle is moving in either direction; and third, such an apparatus which is so constructed and operates, that should it meet with any undue resistance, it will at once yield, and revolve until it passes over the obstacle, when the next point of the cleaner will come into proper position for operation.

In order to enable others skilled in the art to which my invention pertains to make and use the same, I will now proceed to describe it, referring to the accompanying drawings, in which—

Figure 1, is a view in side elevation of my track-cleaner, showing it mounted upon its axle, and detached from the car or truck. Fig. 2, is an inner side view partly in section, taken on line 2, 2, of Fig. 1, looking in the direction of the arrow and showing one of the cleaners. Fig. 3, is an exterior side view thereof. Fig. 4, is a view in side elevation of one of the cleaners removed from its axle and detached from its cam. Fig. 5, is a similar view of a portion of one of the cams. Fig. 6,

is an inner side view thereof. Fig. 7, is a view of a portion of the axle upon which the cleaners are mounted. Fig. 8, is an end view thereof, and Figs. 9, and 10, are detail views of a collar or washer for securing the cleaners on the axle.

Similar letters refer to like parts throughout the different views of the drawings.

A, represents the cleaners or segmental wheels of my device, which are made of any suitable size, and material, but preferably of steel, and are mounted on an axle B, one wheel near each end thereof, or at proper points thereon to track in the grooves of the rails.

The axle B, is formed cylindrical, as at *a*, near each of its ends, for the hub of the wheels A, which are adapted to revolve thereon, and square, as at *a'*, or of a form other than cylindrical, at points adjacent to the cylindrical bearings *a*, for the cams C, which are provided with openings *c*, to correspond with the form of the said portion of the axle, which prevents it revolving, yet allows lateral movement thereof. The central portion of the axle is usually cylindrical, and is provided with a spring *b*, which is coiled around the same, and extends from the shoulder *c'*, of one of the cams, to that of the other, and forces them into engagement with the counter-part cam *C'*, on the inner surfaces of the wheels A, as will presently be more fully explained.

The axle B, may be secured to the body or frame of the car, or trucks of the vehicle in any desired manner, and may have washers or collars *d*, attached near its ends by means of securing pins *d'*, to prevent the cleaners or wheels slipping off.

As is clearly illustrated in the drawings, the cleaners or segmental wheels A, are formed with peripheral projections or extensions *A'*, the extremities or points of which are preferably diamond-shaped (see Figs. 1, and 4), and are provided with lateral flukes, flanges or wings *A''*, which serve to throw the dirt or débris clear of the rails, after it has been plowed up by the said points. The inner side of each of the wheels or cleaners is formed or provided with a face-cam *C'*, which engages with the counter-part-cams C, which as before stated are pressed into engagement

with the cam C' , by means of the spring b , and are revolubly rigid on the axle, yet have a lateral movement, so that when either of the points of the projections A^2 , contact with an immovable obstacle, such as a bolt or broken piece of rail, its wheel will be thereby turned and its cam C' , acting against the cam C , will throw the latter into the position indicated by dotted lines in Fig. 1, until in the revolution of the wheel, its raised part of its cam shall have passed the like part of the cam C , when the normal position will be assumed and one of the points again placed in proper position to clear the groove.

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

1. In a device for cleaning out the grooves of tram or other rails, the combination of an axle adapted to be secured to the car or vehicle, with two spring-actuated cams mounted thereon, and located near the ends thereof, and two segmental-wheels or cleaners each being provided with a face-cam to engage the spring-actuated cams, substantially as described.

2. The combination of the axle B , having the cylindrical portions a , and parts a' , with the cams C , adapted to fit and operate on the portions a' , of the axle, the spring b , interposed between the cams C , and actuating the same, the segmental-wheels A , having the face-cams C' , to engage the cams C , and adapted to track in the grooves of the rails, substantially as shown and described.

3. In a device for cleaning out the grooves of tram or other rails, the combination of the axle B , having the cylindrical portions a , and rectangular parts a' , with the cams C , adapted to fit and operate on the portions a' , of the axle, the spring b , interposed between the cams C , to actuate the same, the segmental-wheels A , having the face-cams C' , to engage the cam C , and the peripheral extensions or projections A' , having the flukes or wings A^2 , all constructed, arranged and operating substantially as shown and for the purpose set forth.

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Witnesses:

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