

UNITED STATES PATENT OFFICE.

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TRACK-SWEEPER.

SPECIFICATION forming part of Letters Patent No. 445,219, dated January 27, 1891.

Application filed October 14, 1890. Serial No. 368,129. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. BRIGGS, of the city of Albany, county of Albany, and State of New York, have invented a new and useful Improvement in Track-Sweepers, of which the following is a specification.

My invention relates to that class of devices known as "sweeping-machines," and especially to such of said machines as are used to sweep or clear off the tracks of street-railways; and it consists of the combination of parts and of the novel devices that are fully set forth and described in the following specification.

Accompanying this specification, and forming a part of it, is one plate of drawings containing seven (7) figures, in all of which similar letters refer to corresponding parts.

Figure 1 is a plan view of my invention. Fig. 2 is a sectional view taken on the line 1 1 of Fig. 1. Fig. 3 is an end view of a car, showing my invention. Fig. 4 shows one of the brushes of my sweeper. Fig. 5 is a side view of a frame of a brush. Fig. 6 shows one of the supports by which my device is attached to a car. Fig. 7 is one of the double bunches of bristles used in constructing the brush.

A is a car-axle, upon which is carried the sprocket-wheel S, which revolves with the turning of A. By means of the chain S² this sprocket-wheel is connected with and its motion imparted to the sprocket-wheel S', carried on the shaft A³, said shaft being secured to the bottom of the car-body or under side of the car-truck by the vertically-adjustable supports H H. The shaft A³ also carries the cog-wheel G'. The shaft A', secured to the under part of the car-body in the same manner as A³ by means of vertically-adjustable supports H, carries at its extremities the brushes B B, adjusted to sweep the car-track. It also carries the cog-wheel G, and the two shafts A' and A³ are so adjusted with reference to one another that the cog-wheels G and G' mesh, and by this means the motion imparted to A³ by the sprocket-wheels and chain is in turn imparted to A', the latter of course revolving in the opposite direction to A. Thus the forward movement of the car causes B B to sweep the track in such a manner that the dirt is thrown forward and away from the

track. A² is a brace-rod running through the supports H of A' and serves to strengthen the latter.

The brush B consists of a brush-block divided into two or more parts T T, the metallic bands T' T', that hold the several parts of the block together, and the bunches of bristles ^t ^t. For these bristles I use, preferably, wire, for the reason that it lasts longer, and also because the friction caused by contact with the track generates a certain amount of heat, that serves to prevent in a measure clogging with snow or ice. The bristles are composed of lengths of wire doubled, each of the free ends of the bunch passing outwardly through contiguous openings ^t ^t in the brush-block. The pressure of the shaft A' serves to hold the bunches securely in place. When the different parts T T are placed together, the bands T' T' are shrunk on the circular shoulders ^{t'}, constructed in segments on the said different parts, and join these parts firmly together.

The supports H of the shafts A' and A³ are vertically adjustable, in order to lower the brushes as the bristles wear down. To accomplish this, the bracket h', which is secured to the under side of the car floor or truck, is provided with two arms h¹ h⁴. H has two or more openings h², situated at varying distances from the center of H, and the pin h, passing through one of these and through corresponding openings h³, placed oppositely in each of h⁴, secures the shaft-supports to the car. (See Fig. 6.) The opening a admits the shaft A'. The pins and openings of the supports of the shafts A' and A³ are round, and those of the supports of the shaft A³ are square. This is in order that A' and A³ may swing, while it is necessary that the shaft A³ be firmly held. The purpose of securing A' and A³ to the car in such a manner that they may swing is that the brushes may be raised and lowered at will from the car, and this is accomplished by attaching the rod A⁴ to two of the central supports H of A' and A³ by means of the arms a' a', securing the rod R by one end to A⁴, and at its other end joining R to the chain C, which passes over the wheel W and up through an opening in the car-platform, and is secured to the hook c or c' as the brushes are raised or lowered.

The dotted lines in Fig. 2 show the position of the brushes and shaft-supports when C is caught at c'.

N is a spring secured at one end to about the center of A², the other end being carried down and under the shaft A³ and secured to the under side of the floor of the car, and it is for the purpose of drawing the brushes back against the track after they have been raised, and to assist in holding them there.

I am aware that by means of sprocket-wheels and chain the revolutions of vehicle-axles have been used hitherto to impart the necessary motion to the brushes of sweeping-machines; hence I do not claim, broadly, the combination of axle, shafts, sprocket-wheels, and chains and brushes.

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

1. In a track-sweeper, the combination of the brushes B, the shafts A' and A³, and means

of actuating the same, with the vertically-adjustable supports H, as hereinbefore described and set forth.

2. In a track-sweeper, the combination of the brushes B, the shafts A' and A³, and means of actuating the same, and the vertically-adjustable pivoted supports H, with the spring N, as and for the purpose hereinbefore described and set forth.

3. In a track-sweeper, the combination of the brushes B, the shafts A' and A³, and means of actuating the same, the vertically-adjustable pivoted supports H, and the spring N, with the rod R and chain C, as and for the purpose hereinbefore described and set forth.

In witness whereof I have hereto set my hand this 7th day of October, 1890.

WILLIAM H. BRIGGS.

In presence of—

CHARLES B. KRUM,
HORACE L. HICKS.