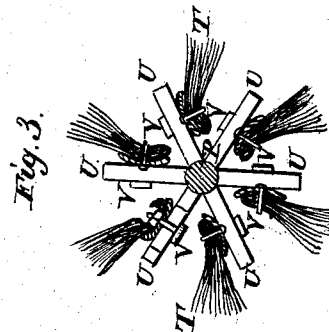
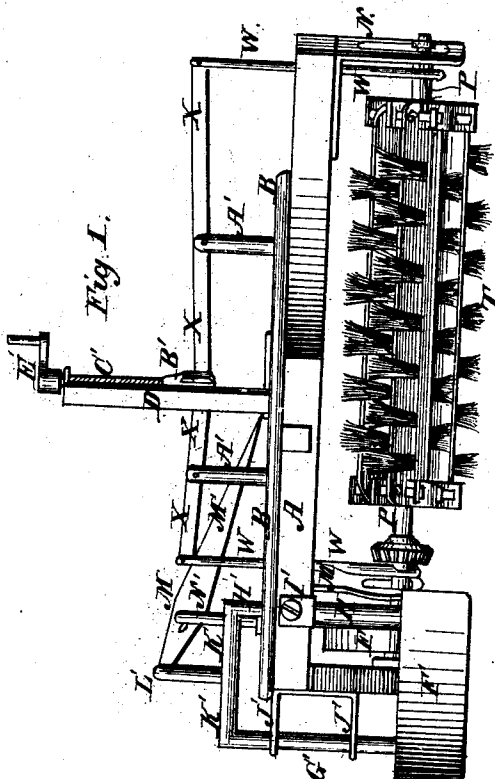


E. A. F. OLMSTEAD.
Car-Track Clearer.

2 Sheets—Sheet 1.

No. 56,256.

Patented July 10, 1866.



Witnesses:

J. M. B. Corington
Wm. Brown

Inventor:

E. A. F. Olmstead
Per Munroe

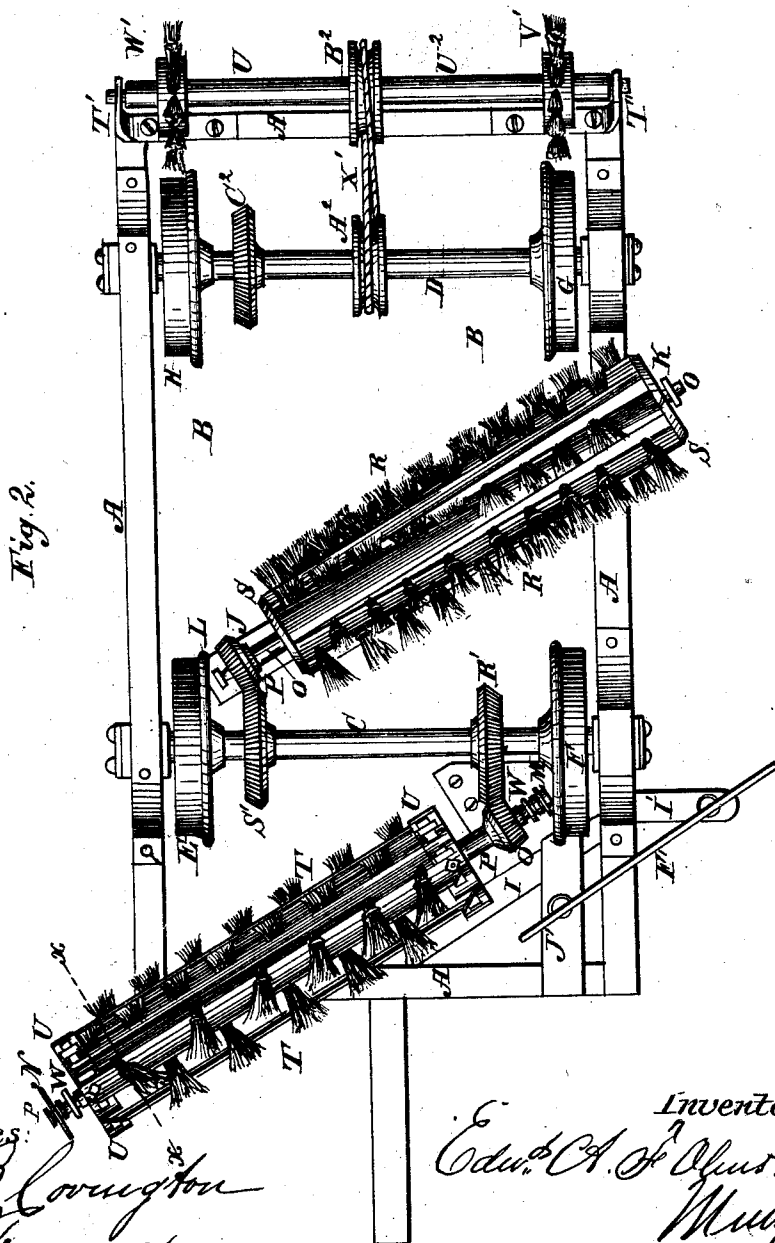
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Inventor:
E. A. F. Olmstead.
Mumford & Co.
Attys

UNITED STATES PATENT OFFICE.

EDWARD A. F. OLMSTEAD, OF NEW YORK, N. Y.

IMPROVED RAILROAD-SWEEPER.

Specification forming part of Letters Patent No. 56,256, dated July 10, 1866.

To all whom it may concern:

Be it known that I, EDWARD A. F. OLMSTEAD, of the city, county, and State of New York, have invented a new and useful Improvement in Railroad-Sweepers; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front-end view of my improved railroad-sweeper. Fig. 2 is an under-side view of the same. Fig. 3 is a detail sectional view taken through the line *x x*, Fig. 2, a part of one arm being broken away.

My invention has for its object to furnish a machine by means of which railroads may be swept and the obstructing dirt or snow removed; and it consists, first, of the combination, with the forward axle of the car, of one or more brooms, as hereinafter more fully described; second, in the combination, with the rear axle and frame of the car, of one or more brooms; third, the combination of the arms, levers, block, and screw, by which the broom is raised or lowered, with each other and with the shaft of the broom; fourth, the combination of the arms, bolts, and bars of the broom with each other, for the purpose of making the brooms adjustable; and, fifth, the making the brush of the broom of steel wire, as hereinafter more fully described.

A is the foundation-frame, B is the floor, C and D the axles, and E, F, G, and H the wheels, of the car. All of these parts are constructed and arranged in the ordinary manner.

I and J are timbers attached obliquely to the frame A of the car, as shown in Figs. 1 and 2, the front timber, I, projecting in front and to one side of the car, and the rear timber, J, projecting about the same distance on the other side. The object of this is that the brooms may be supported in such a position as to extend beyond the track on each side of the car, as shown in Fig. 2. From the ends of these timbers arms K, L, M, and N project downward, in the ends of which are formed the bearings for the broom-shafts O and P.

In the broom R the bars or frame to which the brush is attached are represented as being

immovably attached to the heads or arms S, by which the brush-frame is connected to the shaft O, the said bars passing obliquely along the said shaft, so as to give a partially-spiral form to the broom and enable it to more readily move the dirt or snow toward the outside of the track.

In the broom T the bars to which the brush is attached are parallel to the shaft P, and are adjustably attached to the arms U, by which they are connected to the shaft P by bolts V, which pass through slots in said arms U and are secured in place by nuts, as shown.

The brush of the brooms R T V W should be made of steel wire, which is attached to the bars or frame of the broom in a manner similar to that in which the brush is now attached in ordinary sweepers.

The arms M and N are slotted, as seen in Fig. 1, and in these slots are placed the bearings in which the shaft P revolves, these bearings being supported and held at any desired elevation by the rods W, with the lower ends of which the said bearings are connected. These rods W pass up through the ends of the timber I and the floor B, and are pivoted to the ends of the levers X. These levers X have their fulcrums in the supports or posts A, projecting upward from the floor of the sweeper, and their other ends are pivoted to the block B, through which the screw C passes, by which the broom T is regulated. This screw C is supported by a standard, D, projecting upward from the floor of the sweeper, and is operated by a crank, E.

F is a scraper attached to the frame of the car in front of the inner end of the broom T to receive the dirt or snow from the broom T and push it beyond the track. The scraper F is attached to the lower ends of the rods G and H, which are sustained in place against backward pressure by passing through arms I and J, connected with the frame of the car, as seen in Figs. 1 and 2.

The upper ends of the rods G and H are attached to the cross-bar K, which, at its center, by means of the short arm L, is pivoted to the end of the lever M. The lever M is pivoted to a support, N, upon the floor of the car by means of a slot in said lever, through which the pivoting-pin passes, as shown in Fig. 1,

and its other end is held in proper position by links attached to the floor of the sweeper or in any other convenient way.

Motion is communicated to the brooms T and R from the forward axle, C, by means of the bevel-gear wheels O' and P', attached to the inner ends of the shafts P and O and the bevel-gear wheels R' and S', attached to the axle C, as shown in Fig. 2.

To the rear end of the frame A are attached downwardly-projecting arms T', in bearings in the lower ends of which revolves a shaft, U', to which are attached two circular brooms, V' W', in such positions that they will be directly above the rails of the track.

Motion is communicated to the shaft U' by means of a band, X', passing around pulleys A² and B², attached to the axles D and U, as shown in Fig. 2.

When it is desired to use the sweeper upon railroads so constructed that it will be necessary to use it sometimes with one end forward and sometimes with the other, the broom R should be placed in the rear of the axle D, in a position parallel to the one shown in Fig. 2, and should receive motion from the bevel-gear wheel C². In this case the arms T' would necessarily have to project backward as well as downward, or the frame of the car would have to be longer, so as to allow room for the broom R between the axles D and U'. In this case also arms would have to be attached to both

ends of the car for the support of the shaft U', so that said shaft might be changed from one end of the car to the other, according to the direction in which the car might be moving.

What I claim as new, and desire to secure by Letters Patent, is—

1. The arrangement of the brush-bars, in combination with the arms S and shaft O, as described.

2. The combination of the brush-bars, arms U, and shaft P, in the manner and for the purpose herein represented and described.

3. The arrangement of the rods W, levers X, and screw-block B, in combination with the shaft P, bearing in the slotted arms M N, in the manner and for the purpose herein described.

4. The combination of the scraper F, rods G H, arm I, and lever M, in the manner and for the purpose herein described.

5. The arrangement of the brooms R T, gearing O' P' R' S', brooms V' W', and pulleys A² B², in combination with the frame A and wheels E F G H, constructed and operating in the manner and for the purpose herein specified.

The above specification of my invention signed by me this 2d day of March, 1866.

E. A. F. OLMSTEAD.

Witnesses:

M. M. LIVINGSTON,
JAMES T. GRAHAM.