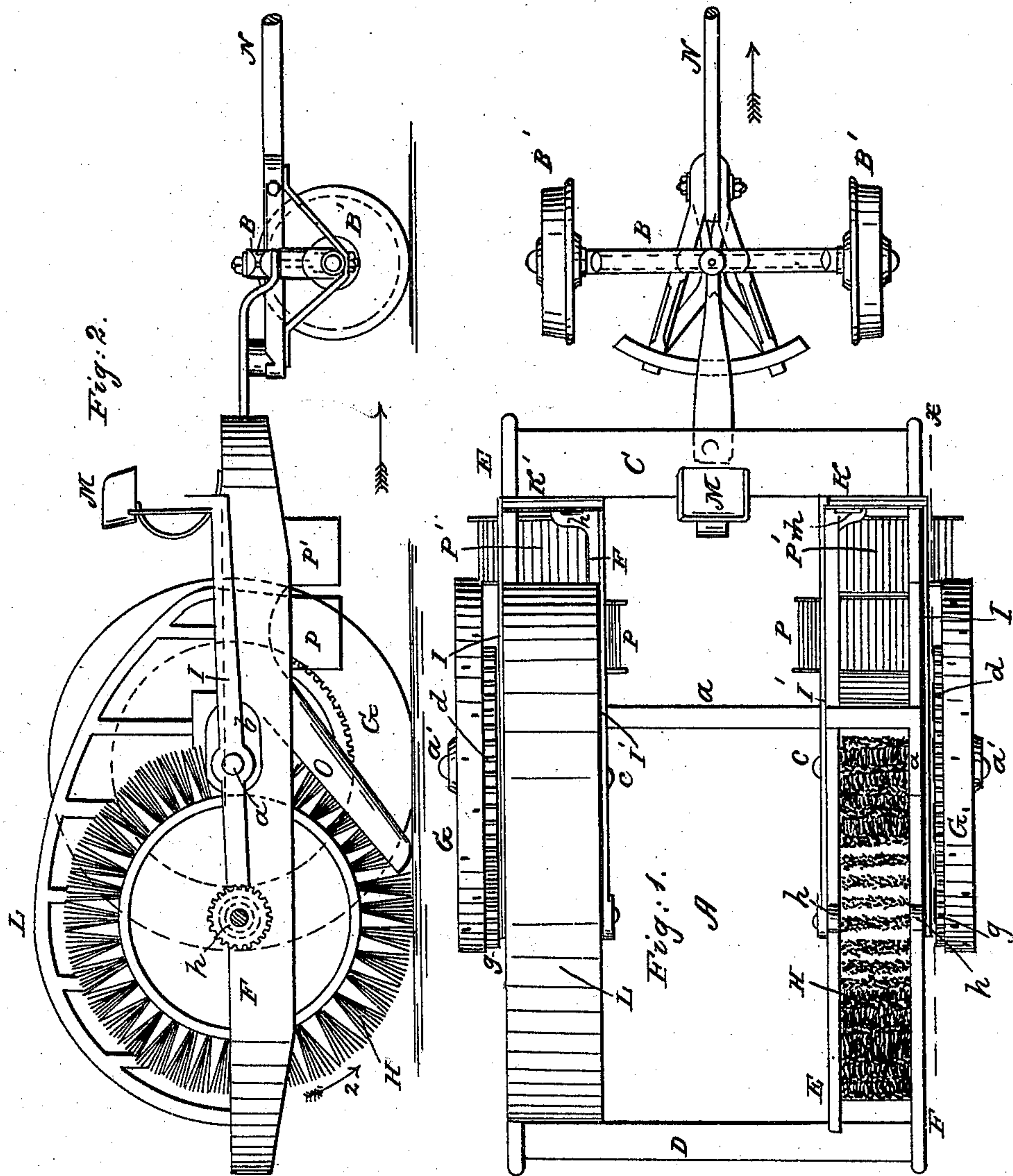


M. F. WICKERSHAM.
Railroad Track Clearer.

No. 97,577.

Patented Dec. 7, 1869.



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Letters Patent No. 97,577, dated December 7, 1869.

IMPROVED RAILWAY-TRACK CLEANER.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, M. F. WICKERSHAM, of Springfield, in the county of Sangamon, and State of Illinois, have invented a new and improved Machine for Sweeping Railroad-Tracks; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable others skilled in the art to which my invention appertains, to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a top plan view of my improved machine for sweeping railroad-tracks, the case of one brush being removed.

Figure 2 is a longitudinal section of the same in the line *x x*, fig. 1.

Similar letters of reference indicate corresponding parts in the several figures of the drawings.

My invention relates to machines for sweeping railroad-tracks, and is more especially designed for use upon street-railroads.

Heretofore great difficulty has been encountered in keeping street-railroad tracks free from snow in winter, and from dirt, gravel, &c., in the summer.

My invention has for its object to overcome this difficulty; and to this end,

It consists, first, in two cylindrical brushes, arranged to rotate upon each side of a suitable frame, in contact with the upper surface of the rails of a railroad-track, in such a manner as to clear said track of snow and dirt; the brushes being hung upon lever-arms, which are adapted to be raised and lowered independently of each other, to permit both brushes to operate upon the rails simultaneously or in succession, and to facilitate the transportation of the machine from place to place, with the brushes out of contact with the ground.

It consists, secondly, in the combination, with the cylindrical brushes and the main frame of the machine, of guide-aprons, or spouts, by which the snow or dirt is received from the brushes and discharged under the forward portion of the frame, upon the outside of the track, or between the rails, and clear of the latter.

It consists, thirdly, in constructing the axle with transverse plates, which are so arranged as to strengthen and support the main frame, and to balance the same upon the driving-wheels.

It consists, lastly, in the construction of the main frame, and in the arrangement therewith of the truck by which said frame and the brushes are guided, with relation to the track-rails, as will be hereinafter more fully described.

In the accompanying drawings, A is the frame of the machine, composed of wood, or other suitable material, mounted at its front end upon a swivelled truck, B, having flanged wheels, B'.

This frame is rectangular in shape, and formed by

connecting together the front and rear cross-bars O D by means of parallel side-bars E F, arranged, two upon each side, in such a manner as to leave the centre of the frame open, as shown in fig. 1.

The frame is mounted upon wheels, G, which are hung upon the ends of the axle *a*, outside the side-bars E, as shown. The axle is so formed as to strengthen the frame, while it affords a sufficient support for the wheels. For this purpose it is bent twice, at right angles, near its ends, and the portion *a'* provided with a plate, *b*, by which the axle is securely attached to the side-bars E of the frame. By this construction of the axle, the frame is not only strengthened, but well balanced upon the wheels G.

These wheels, and those of the truck B, are so arranged, with relation to each other, that the former shall travel outside the rails of a street-railroad, while the latter move directly upon the rails.

H are circular brushes, arranged, one upon each side of the frame, between the parallel bars E F, and immediately over the rails of a railroad-track.

The brushes H are mounted upon axles *h*, having their bearings in the ends of parallel lever-arms I I', which are arranged upon the outer sides of the bars E F, the arms I' being hung upon the axles *a* of the wheels G, and the arms I, pivoted at *e* to the inner sides of the bars E of the frame, as already shown in the drawings.

The lever-arms for each brush extend to the forward portion of the frame, as shown, and are there firmly secured to a cross-bar, K, by which they are operated. By this arrangement the brushes are allowed a slight vertical movement, independently of each other, when the levers are raised or lowered. When the machine is being transported from place to place, the brushes are raised above the tracks by depressing the bars K, either with the foot of the driver, or by other proper means, and held in this position by means of a catch, *m*, affixed to the cross-bar O of the frame, as shown. When it is desired to operate the machine, the cross-bars K are released, and the brushes fall, by their own gravity, in contact with the rails.

Motion is communicated to the brushes from the driving-wheels G, by means of toothed rims, *d*, arranged upon the inner faces of the wheels, engaging with pinions *g*, secured to the outer ends of the axles *h* of the brushes.

L are cases, of the form shown in fig. 2, arranged upon the side-bars of the frame A, to enclose the upper portion of the brushes, and prevent the snow and dirt from being thrown above the frame, in the operation of sweeping.

The cases are made removable, in order to permit the inspection of the brushes from time to time, and for facilitating their removal or repair.

M is the driver's seat, mounted upon the front cross-

bar C of the frame, and N is the tongue by which the draught is applied to the truck and frame.

O are inclined aprons, composed of metal, or other material, having their sides bent up slightly, and pivoted at their upper ends between the parallel side-bars E F, in front of the brushes, with their lower ends resting upon the rails of the track.

As the machine moves along over the track, in the direction of the arrow 1, the brushes are rotated, through the medium of the gearing, in the direction indicated by the arrow 2, throwing the snow or dirt up the inclined aprons O into spouts P, affixed to the under side of the bars E F. These spouts incline inward, or toward each other, as shown, and discharge the snow or dirt between the rails of the track.

P' P' are similar spouts, inclined outward, to discharge the snow or dirt upon the outside of the track.

My improved machine is simple in construction, easily operated, and performs the office for which it is designed, in the most thorough manner.

Having thus described my invention,

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

1. The cylindrical rotary brushes H, arranged as described, upon the frame A, with relation to the rails of a railroad-track, and hung upon the lever-arms I I' in such a manner as to be raised or lowered simultaneously or in succession, substantially as herein shown and described, for the purpose specified.

2. In combination with the cylindrical brushes H, and the main frame A, the pivoted inclined aprons or spouts O, and spouts P or P', receiving the dirt directly from the spouts O, substantially as herein shown and described for the purpose specified.

3. The axle *a a'*, constructed as described, with the plates *b*, and arranged substantially as and for the purpose specified.

4. The frame A, constructed as described, with removable cases L, and adapted to be guided, with relation to the rails of the track, by means of the truck B B', as herein set forth and shown, for the purpose specified.

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