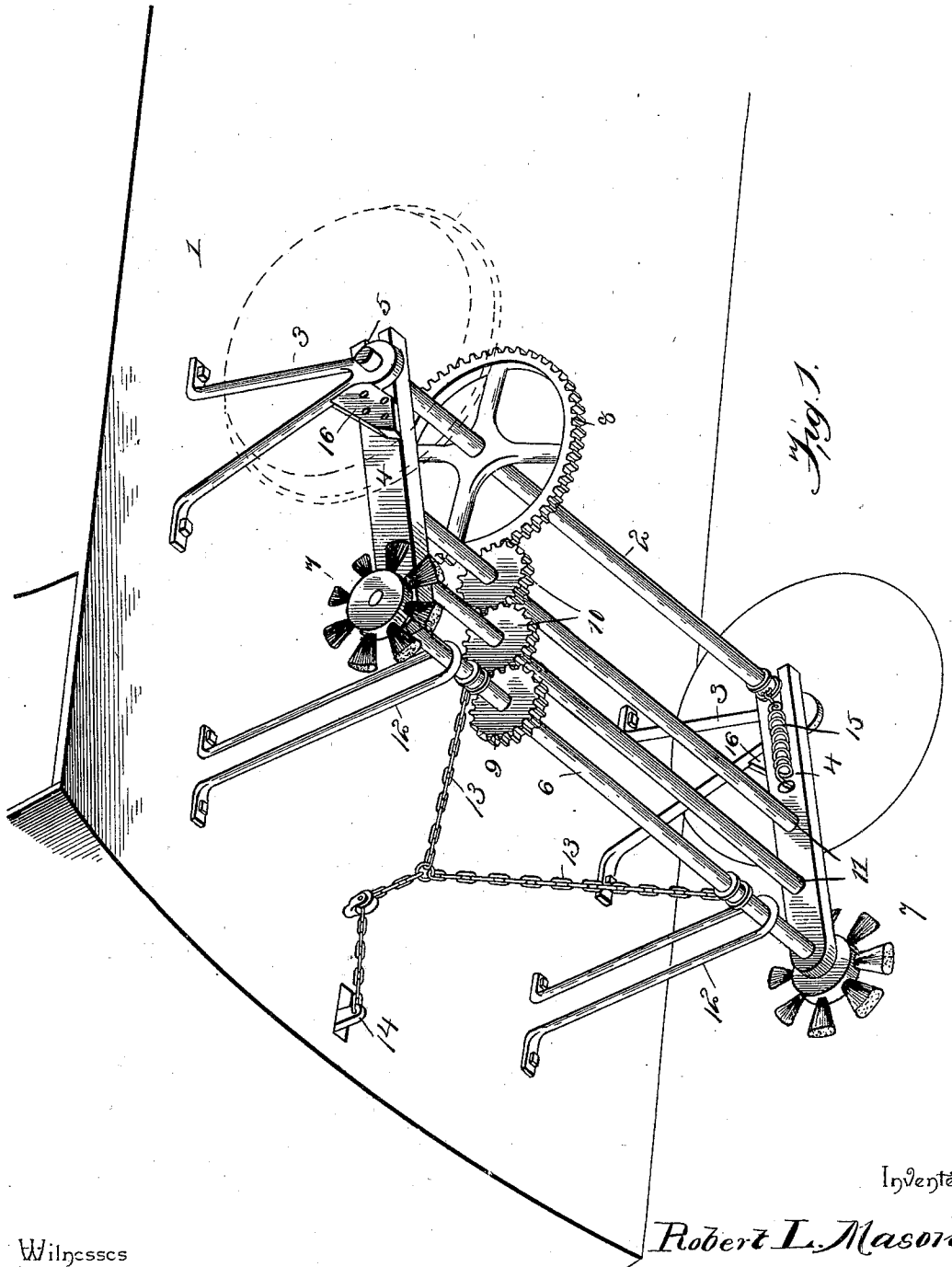
(No Model.) 2 Sheets—Sheet 1.

R. L. MASON.

TRACK CLEANING APPARATUS.

No. 513,403. Patented Jan. 23, 1894.



Inventor

Robert L. Mason.

Witnesses

John C. Shaw.

O. E. Doyle

By his Attorneys,

C. A. Snow & Co.

THE NATIONAL LITHOGRAPHING COMPANY,
WASHINGTON, D. C.

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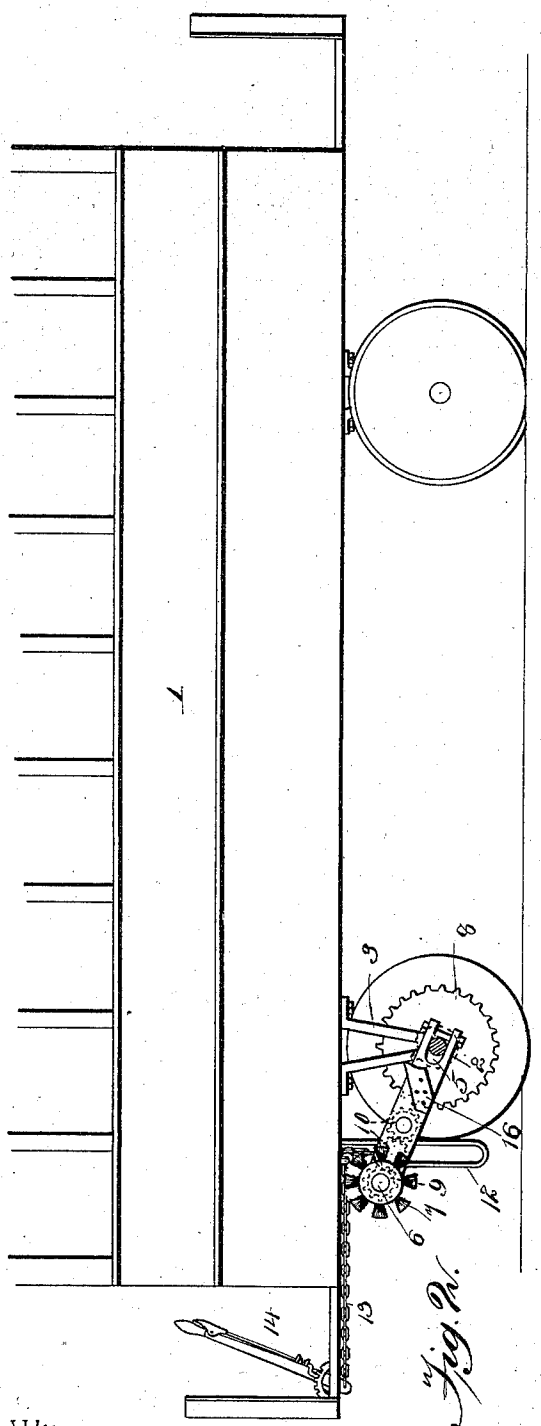

Fig. 2.

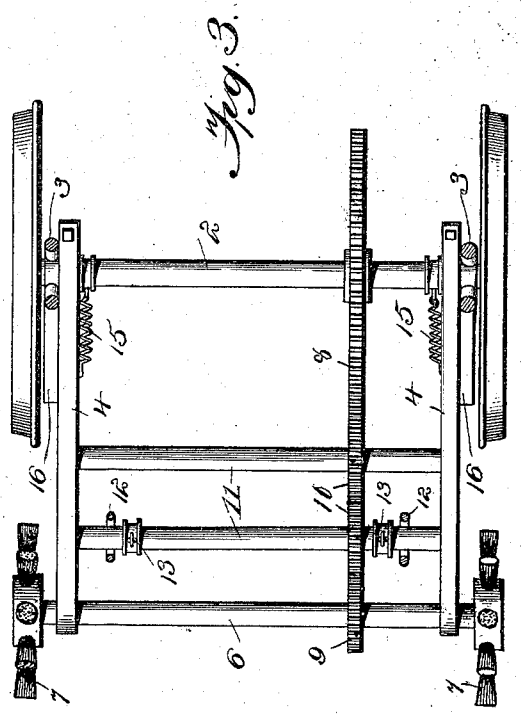

Fig. 3.

Witnesses

John A. Shaw.

E. C. Hazard

Inventor

Robert L. Mason.

By his Attorneys.

C. A. Snow & Co.

THE NATIONAL LITHOGRAPHING COMPANY,
WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ROBERT L. MASON, OF BUTTE, MONTANA.

TRACK-CLEANING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 513,403, dated January 23, 1894.

Application filed October 5, 1893. Serial No. 487,217. (No model.)

To all whom it may concern:

Be it known that I, ROBERT L. MASON, a citizen of the United States, residing at Butte city, in the county of Silver Bow and State of Montana, have invented a new and useful Track-Cleaning Apparatus, of which the following is a specification.

My invention relates to a sweeper and cleaner for street car tracks, and it has for its object to provide a simple, inexpensive and efficient construction adapted to be applied to any ordinary form of street car and a cap capable of easy adjustment whereby it may be thrown in and out of gear with the driving shaft at the will of the operator.

Further objects and advantages of my invention will appear in the following description and novel features thereof will be particularly pointed out in the appended claims.

In the drawings: Figure 1 is a reverse perspective view of an apparatus embodying my invention applied in the operative position to a street car, the brushes being shown in their lowered or operative position. Fig. 2 is a side view with the brushes elevated and the mechanism out of gear. Fig. 3 is a plan view of the apparatus.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a portion of a street car body, 2 a wheel carrying axle and 3 the standards or hangers in the lower ends of which is formed the bearing for said axle.

The frame of the sweeping apparatus comprises essentially the side arms 4 which are swiveled upon the axle near the extremities of the latter by means of terminal longitudinal slots 5 with which said arms are provided to engage the axle. Journaled in bearings in the front ends of said arms is a brush carrying shaft 6 provided with the fixed rotatable brushes 7. The axle carries a gear wheel 8 the motion of which is communicated to a spur wheel 9 upon the brush carrying shaft by means of intermediate pinions 10 which are carried by the shafts 11 whereby the brush carrying shaft rotates in the opposite direction to the axle.

12 represents depending guide loops through which extends the shaft 6 and connected to the same shaft by means of a chain 13 is an operating lever 14 whereby the free end of the frame of the sweeper may be elevated.

Springs 15 connect the arms of the frame to the axle to normally hold the former in their operative positions, as shown in Fig. 1, and secured to the arms and fulcrumed eccentrically in relation to the frame are shifting blocks 16, whereby when the free end of the sweeper is elevated said arms are thrown forward against the tension of the springs 15 and the brush carrying shaft is thrown out of gear with the axle. In the construction which I have illustrated the fulcrum of the shifting block is produced by causing the extremity of said block to bear against a fixed portion of the car body, such as the hanger, above the plane of the axle.

The operation of the sweeping mechanism will be readily understood from the foregoing description and it will be noted, furthermore, that when the frame is lowered to the position shown in Fig. 1 the brush carrying shaft is arranged in gear with the axle and is held in such position by the action of these springs whereby lost motion caused by wear, shrinkage of the parts, &c., is compensated and when the frame is elevated by means of the operating lever the eccentricity of the shifting block throws the brush carrying shaft out of gear with the axle, as shown clearly in Fig. 2.

It will be understood that, in practice, various changes in the form, proportion and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of my invention.

The brushes which I have shown and prefer to use in connection with my improved apparatus are constructed of wire, and the bristles are arranged in separated groups or bunches, whereby the brushes are rendered self-cleaning to prevent clogging with snow, &c., the cleaning action being due to the elasticity of the bristles and the freedom of movement afforded by the intervals.

Having thus described my invention, what I claim is—

1. In a track cleaning apparatus, the combination with a driving axle, of a pivotal frame swiveled upon said axle, a brush carrying shaft journaled upon the frame and con-

nected by intermediate gearing with the axle, operating devices to elevate the free end of the frame, and means whereby the frame is guided eccentrically to the axle, substantially as specified.

2. The combination with a driving axle, of a frame provided with side arms having slotted extremities to receive said axle, springs to normally hold the slotted extremities of the arms in engagement with the axle, a brush carrying shaft journaled upon the frame and connected by intermediate gearing with the axle, an eccentrically fulcrumed shifting block secured to the frame and having its fulcrum arranged above the plane of the axle, and means to elevate the free end of the frame, substantially as specified.

3. The combination with a driving axle, of a frame swiveled thereon and having a slotted connection with the axle, springs to hold said frame in operative position, depending guide loops engaging a transverse shaft of the frame, a brush carrying shaft journaled upon the frame and connected by intermediate gearing with the axle, and means for elevating the free end of the frame, substantially as specified.

4. The combination with a driving axle carrying a gear wheel, of a frame having side arms provided with slotted extremities to engage the axle, eccentrically fulcrumed shifting blocks carried by the frame, springs to hold the slotted extremities of the arms in engagement with the axle, a brush carrying shaft connected by intermediate gearing to the gear wheel which is fixed to the axle, pendent guiding loops engaging the transverse shaft of the frame, and elevating mechanism comprising an operating lever and a chain connecting said lever to the frame, whereby the free end of the latter may be elevated to throw the brush carrying shaft out of gear with the axle, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ROBERT L. MASON.

Witnesses:

SAMUEL H. ALMON,

GARNER T. POTTER.