

(No Model.)

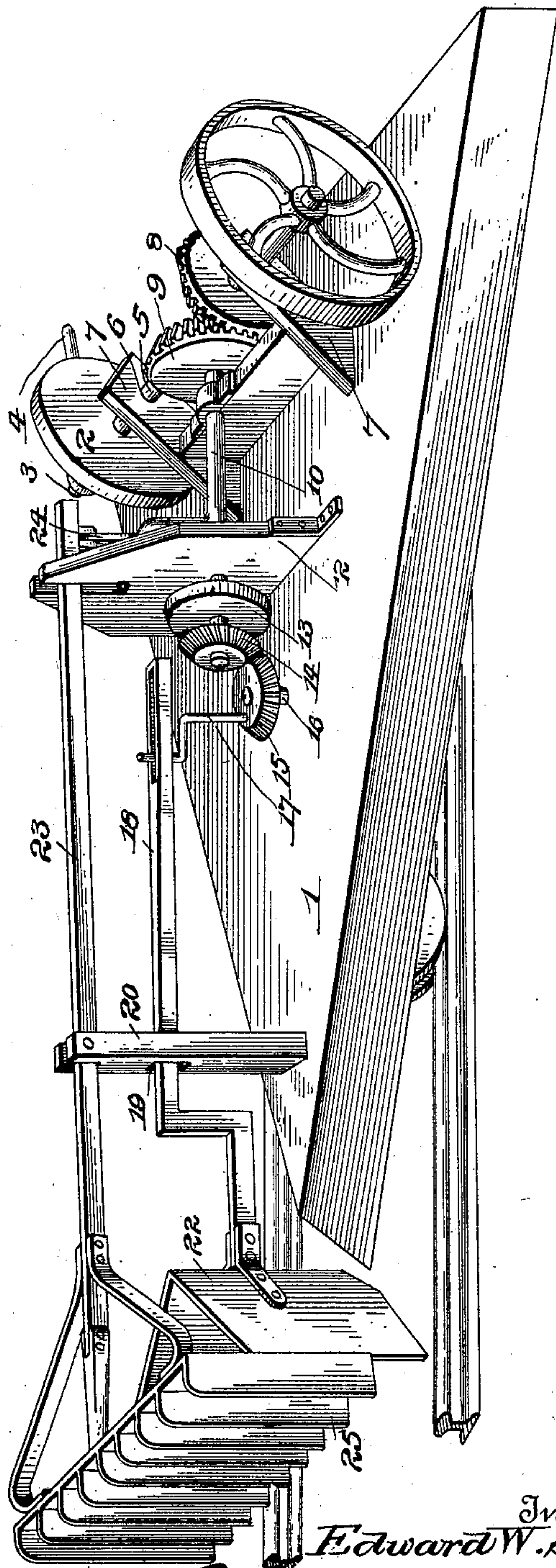
2 Sheets—Sheet 1.

E. W. SIMMS.
TRACK CLEANER.

No. 594,571.

Patented Nov. 30, 1897.

Fig. 1.



Witnesses
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(No Model.)

2 Sheets—Sheet 2.

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Fig. 2.

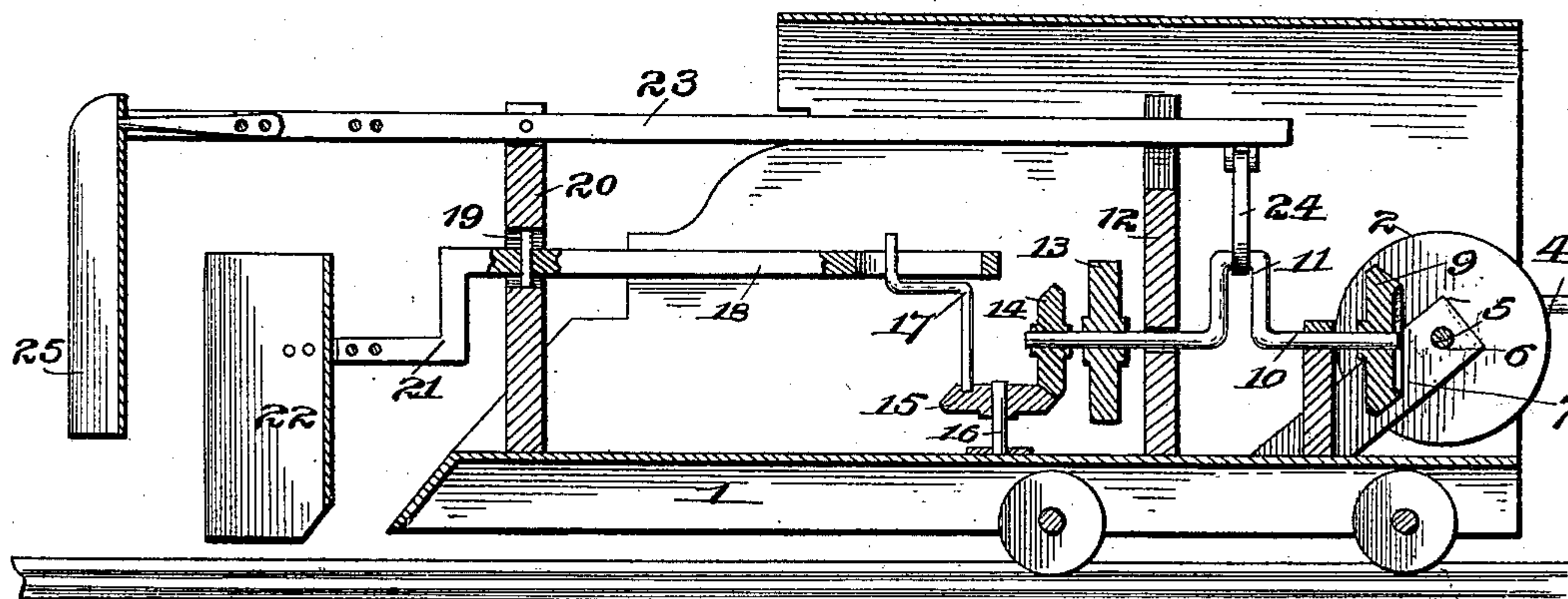
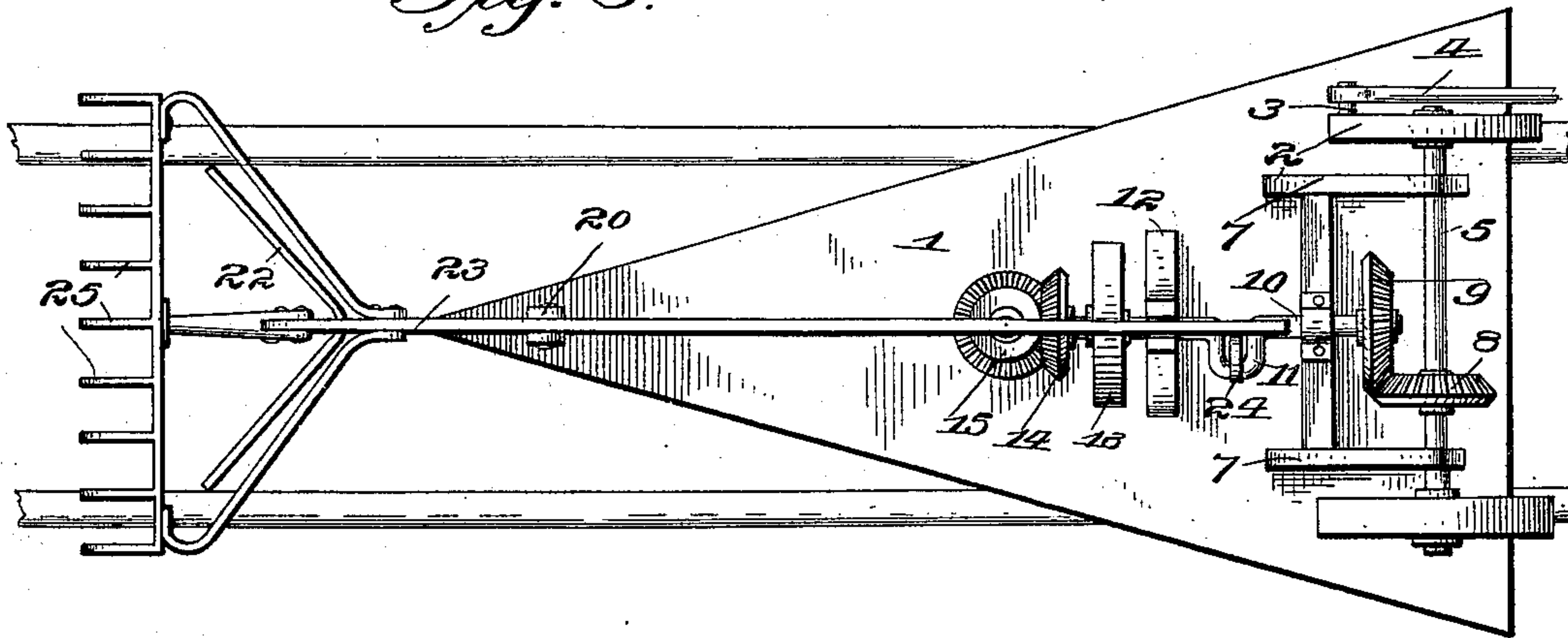


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE

EDWARD W. SIMMS, OF FORT ASSINNIBOINE, MONTANA, ASSIGNOR OF ONE-HALF TO WILLIAM D. DAVIS, OF SAME PLACE.

TRACK-CLEANER.

SPECIFICATION forming part of Letters Patent No. 594,571, dated November 30, 1897.

Application filed July 21, 1897. Serial No. 645,415. (No model.)

To all whom it may concern:

Be it known that I, EDWARD W. SIMMS, of Fort Assinniboine, in the county of Choteau and State of Montana, have invented certain new and useful Improvements in Track-Cleaners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to new and useful improvements in track-cleaners; and it consists in the novel combination and arrangement of simple parts, which will be hereinafter fully described.

The object of the invention is to produce a device of the character above mentioned that can be conveniently attached to the forward end of a locomotive-engine or to the front of street or other cars to remove snow from the tracks.

Other objects and advantages of my invention will become apparent in the course of the following description, and the points of novelty will be particularly pointed out in the claims.

I am enabled to accomplish the objects of my invention by the simple means illustrated in the accompanying drawings, in which—

Figure 1 represents a view of my improved device with the cover thereof removed to more clearly illustrate the mechanism thereof. Fig. 2 is a central longitudinal section of the same; Fig. 3, a top plan view with cover removed.

Referring to the drawings, the numeral 1 indicates a platform which is mounted on wheels.

The numeral 2 indicates a wheel which is provided on its face with a laterally-extending projection or pin 3, which serves as a means to pivotally connect the wheel with the pitman-rod 4, which is adapted to be connected to the forward end of a crank to impart motion to said wheel.

The numeral 5 indicates a shaft to which the wheel 2 is keyed. Said shaft extends transversely of the platform, at the rear thereof, and is mounted in bearings 6 on the upper ends of the inclined supports 7. Keyed to said shaft, to one side thereof, is a miter gear-

wheel 8, which meshes with a similar wheel 9, mounted upon the end of a shaft 10, which is provided with a crank 11, the purpose of which will presently appear. The shaft 10 extends beyond said crank and through a support 12, mounted upon the platform, where on the opposite side of the support it is provided with a fly-wheel 13 and a miter gear-wheel 14, which gears with a similar wheel 15, mounted upon a short vertical shaft 16 on the platform. Mounted upon the wheel 15 is a crank-arm 17, which passes through a horizontal arm 18, which passes through an opening 19 in the post 20, provided near the front of the platform, while on the other side of said post it is provided with an angle-arm 21, which carries at its forward end a shovel 22. Pivotaly mounted in the upper portion of the standard 20 is an arm 23, which extends horizontally and is provided at or near its rear end with a short pitman-rod 24, which connects said arm with the crank 11.

The numeral 25 indicates a series of cutting-knives which extend transversely of the track and are secured to the forward end of the arm 23.

The operation of my improved track-cleaner is as follows: Power is applied to the shaft 5, which causes the gear-wheel 8 to rotate, thus rotating the gear-wheel 9 and the shaft 10, causing the horizontal bar 23, through the crank-and-pitman connection, to rock vertically and bring the snow-knives successively in contact with the snow, to break or loosen the same, so that it can be readily removed.

The rotation of the shaft 10, it will be seen, will cause the rotation of the miter gear-wheel 15. Thus the crank-arm thereof, connected with the rear end of the arm 18, will cause the shovel 22 to vibrate laterally and remove the snow from the track to either side thereof.

I do not desire to be understood as limiting myself to the precise construction shown in the drawings, and many modifications involving mechanical skill will suggest themselves and be made without departing from the spirit of the invention.

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

1. In a track-cleaner, the combination with

a suitable platform provided with wheels, and adapted to run upon a track, of a transverse shaft mounted in suitable bearings at the rear of the platform, and provided with means
 5 for gearing the same with any suitable source of power to rotate the shaft, a miter gear-wheel upon the transverse shaft, a longitudinally-extending shaft mounted in suitable bearings upon the platform, and provided
 10 with a miter gear-wheel at each end, and a fly-wheel and crank, the rear gear-wheel being adapted to engage with the gear-wheel on the transverse shaft, a post mounted near the front of the platform, a longitudinally-extending arm pivoted therein, and provided at its
 15 forward end with snow-knives, and passing through suitable guides near the rear of the machine, a pitman connection between the said rod and crank on the longitudinally-extending shaft, whereby said bar is rocked vertically, causing the knives to cut or loosen
 20 the snow when the shaft is rotated, and means for removing the snow from the track, after it has been loosened by the knives, substantially as and for the purpose set forth.

2. In a device of the character described, the combination with a suitable platform provided with wheels, and adapted to run upon a track, of a transverse shaft mounted in suitable bearings at the rear of the platform, and
 30 provided with means for gearing the same with any suitable source of power to rotate the shaft, a miter gear-wheel upon the shaft, a longitudinally-extending shaft mounted in suitable bearings upon the platform, and provided with gear-wheels at each end, and a fly-wheel and crank, the rear gear-wheel being
 35 adapted to mesh with the gear-wheel on the transverse shaft, a miter gear-wheel mounted upon the platform, and adapted to mesh with the gear-wheel on the front end of the longitudinal shaft, a crank-arm mounted upon said gear-wheel, a post mounted upon the forward end of the platform, a longitudinally-
 40 extending arm passing through said post and provided at its front end with a snow-shovel, and having its rear end connected to the crank-arm on the gear-wheel, so that the

shovel is laterally vibrated to remove the snow from the track when the transverse
 50 shaft is turned, and means for breaking or loosening the snow, so that the shovel can readily remove the same, substantially as and for the purpose set forth.

3. In a device of the character described, the combination with a suitable platform provided with wheels, and adapted to run on a track, of a transverse shaft mounted in suitable bearings at the rear of the platform, and
 60 provided with means for gearing the same with any suitable source of power to rotate the shaft, the miter gear-wheel mounted upon the shaft, a longitudinally-extending shaft mounted in suitable bearings upon the platform, and provided with miter gear-wheels at
 65 each end thereof, and a fly-wheel and crank, the rear gear-wheel being adapted to engage with the gear-wheel on the transverse shaft, a post mounted near the front of the platform, a longitudinally-extending arm pivoted
 70 therein, and provided at its forward end with cutting-knives, and passing through a suitable guide near the rear of the machine, a pitman connection between the rod and the crank on the longitudinal shaft, whereby said
 75 bar is rocked vertically to loosen the snow, a gear-wheel mounted upon the platform, and adapted to mesh with a gear-wheel on the front end of the horizontal shaft, a crank-arm upon the gear-wheel, a longitudinally-
 80 extending arm passing through the post, and provided at its front end with a snow-shovel, and having its rear end connected with the crank-arm on the gear-wheel, whereby said arm is caused to vibrate laterally, to cause
 85 the shovel to throw the snow from the track, at either side thereof, after the same has been loosened by the knives, substantially as and for the purpose set forth.

In testimony whereof I have signed this
 90 specification in the presence of two subscribing witnesses.

EDWARD W. SIMMS.

Witnesses:

OMAR G. V. GREGG,
 JEFFERSON DAVIS.