

(No Model.)

R. LESLIE.
RAIL CLEANER.

No. 555,454.

Patented Feb. 25, 1896.

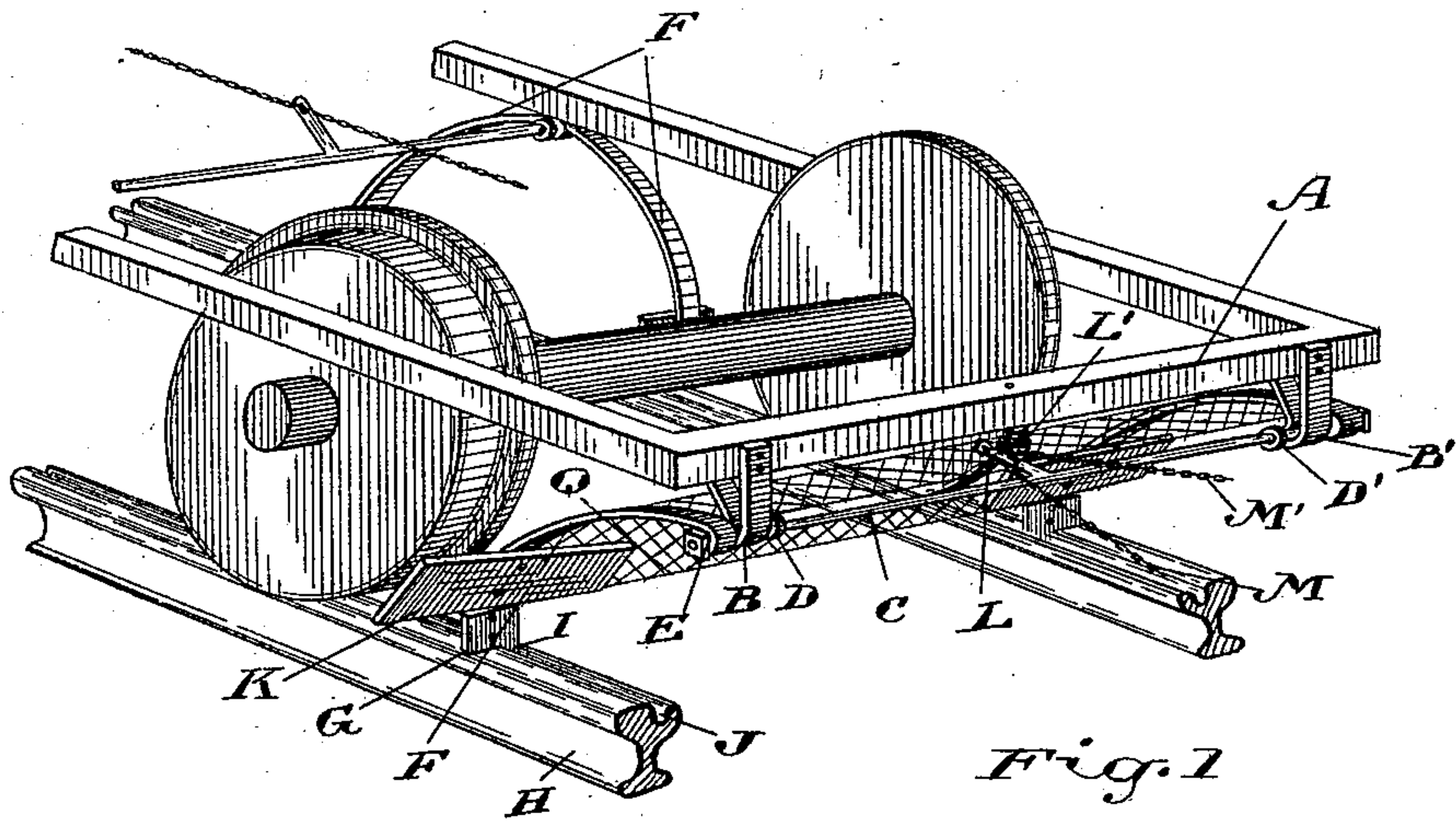


Fig. 1

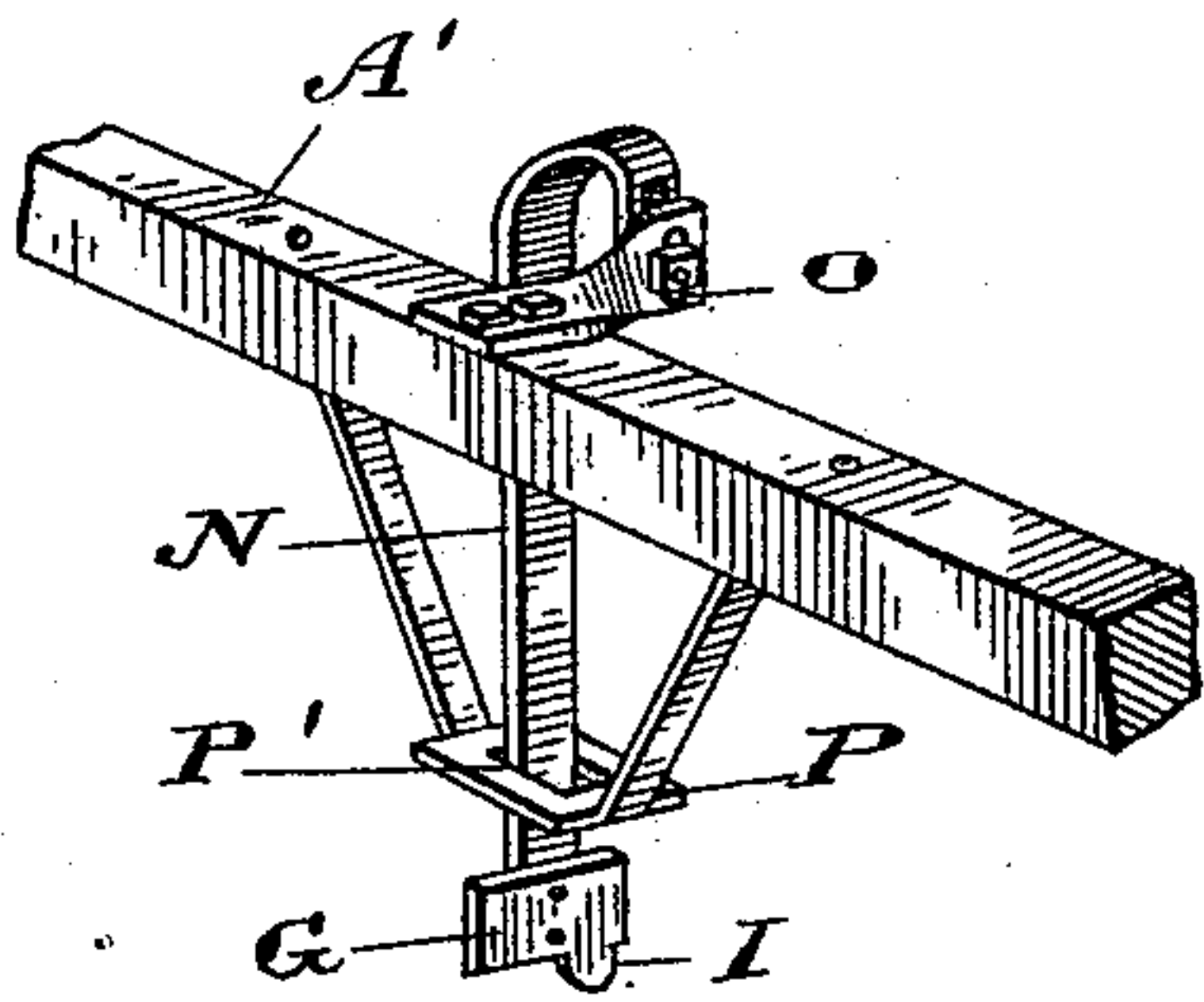


Fig. 3

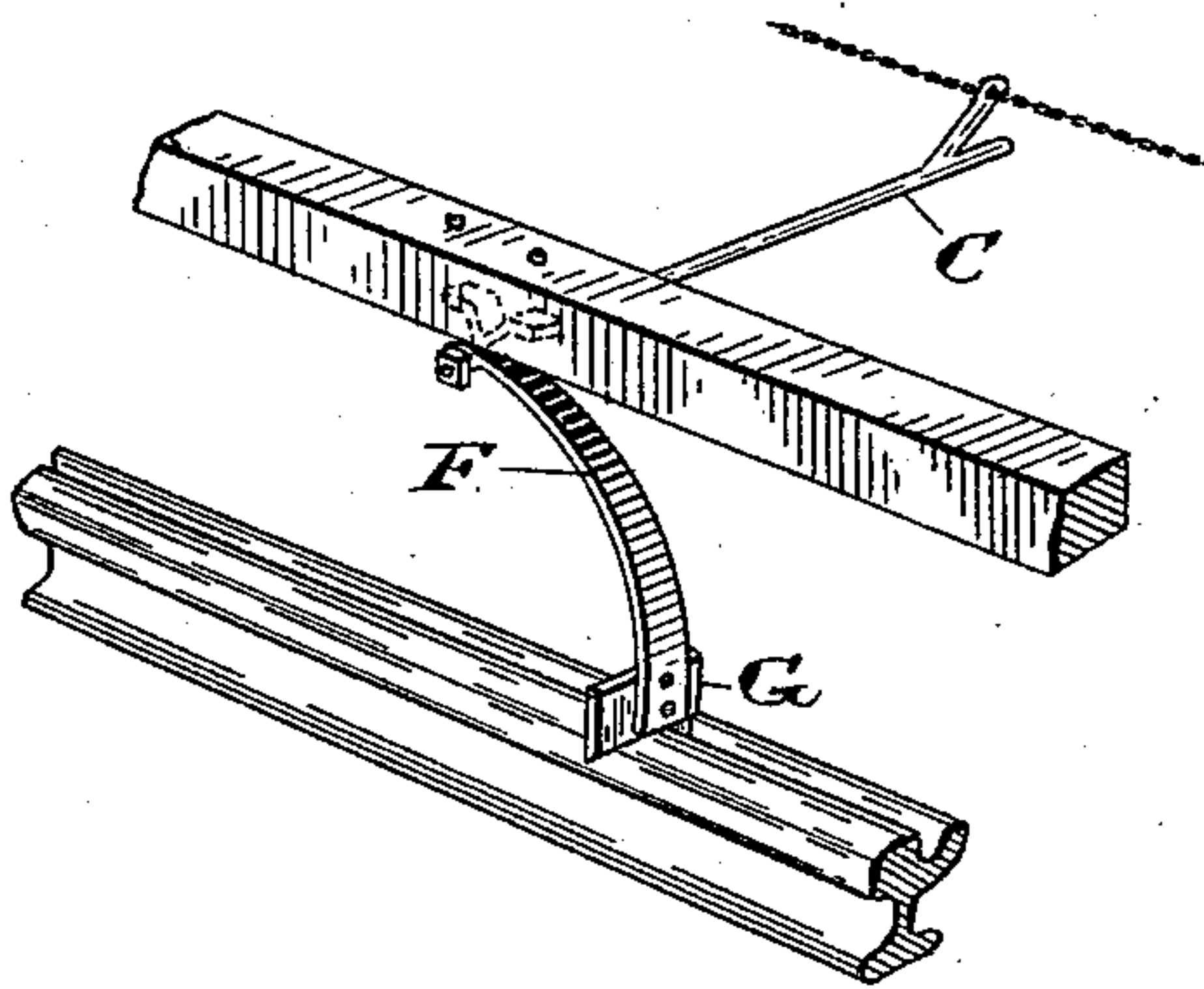


Fig. 2

Witnesses

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UNITED STATES PATENT OFFICE.

ROBERT LESLIE, OF TORONTO JUNCTION, CANADA.

RAIL-CLEANER.

SPECIFICATION forming part of Letters Patent No. 555,454, dated February 25, 1896.

Application filed June 10, 1895. Serial No. 552,365. (No model.)

To all whom it may concern:

Be it known that I, ROBERT LESLIE, of Toronto Junction, in the county of York and Province of Ontario, Canada, have invented certain new and useful Improvements in Rail-Cleaners; and I hereby declare that the following is a full, clear, and exact description of the same.

This invention relates to a certain new and useful device by means of which snow, ice, water, dirt, grease, or other foreign matter may be successfully scraped from the rails in advance of a moving car, and thereby a gripping or antislipping surface is provided for the wheels in order that the traction force of the motive power may be unimpaired; and also to so construct and arrange the device that these foreign substances may be entirely removed from the rail, so that a complete contact may be formed between the wheel and the rail, the whole device being constructed, arranged, and operated, as hereinafter more fully set forth and more particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a portion of a car-truck, showing the application of my invention. Fig. 2 is a perspective view of one of the track-cleaners. Fig. 3 is a modification.

Like letters of reference refer to like parts throughout the specification and drawings.

Connected to the end bar, A, of the frame of the truck are two brackets B B'. The bracket B is located at or near one end of the end bar, A, while the bracket B' is located at or near the opposite end of the end bar, A. Formed in the brackets B B' are the bearings for the rock-shaft C. Mounted on the rock-shaft C close to the bracket B is a collar D, and mounted on the rock-shaft C close to the bracket B' is a collar D'. The collars D D' are slightly removed from the brackets B B' in order that the rock-shaft C will be permitted a slight side movement in its bearings. Each end of the rock-shaft C is squared to correspond with the squared socket E in the shoe-carrying arm F. The shoe-carrying arm F is preferably curved and made of spring-steel. Bolted or otherwise fastened to the lower end of the shoe-carrying arm F is the shoe G, the under side of which is shaped to correspond with the curvature of the top of

the rail A. Extending downwardly from the inner side of the shoe G and in close proximity to the rail H is a colter I for the purpose of removing snow, ice, or other obstacles from the path of the flange of the wheel. Between the inner side of each of the sockets E and its respective bracket is a slight space to permit of an independent side motion on the part of each of the shoe-carrying arms F, and also to allow of the rock-shaft C moving sidewise in its bearings. When the rail H is provided with a groove J the colter I is shortened, so that it barely touches the bottom of the groove J. The colter I scrapes from the groove J all foreign substances and allows of a perfect contact between the flange and the side of the groove. When the rail is an ordinary T-rail the colter I extends to the lower flange.

To displace the snow, ice, or other foreign substance for some distance on the outer side of the rail H, I find it advisable to connect to the shoe G and the shoe-carrying arm F a moldboard K.

I have shown in Fig. 1 two shoe-carrying arms F, connected to each end of the rock-shaft C, so that when the car is moving in one direction one of the shoe-carrying arms F may be moved into the proper position to allow of the shoe scraping the rail, and when the car is moving in the opposite direction the other shoe-carrying arm F may be moved into position to allow of the other shoe scraping the same rail. I may, however, if I find it advisable, employ only one shoe-carrying arm on each end of the rock-shaft. Connected to the rock-shaft C is an arm L. When the arm L is in a horizontal position the shoes are free from contact with the rail. When the arm L is moved into an inclined position one set of shoes is brought into contact with the rail, and when it is in a declined position the other set of shoes is brought into contact with the rail. Two chains M M' are connected to the arm L in order that the said arm can be moved into any of its required positions to turn the rock-shaft.

In Fig. 3 I have shown a vertical shoe-carrying arm N, adjustably connected to a bracket O, mounted on the top of the side bar, A', of the frame of the truck. The lower end of the vertical arm N is provided with a clean-

ing-shoe G, having a colter I similar to that above described. Connected to the underside of the side bar, A', is a guide-bracket P, having an opening P', through which passes the vertical arm N. The opening P' is sufficiently larger than the vertical arm N to allow of a short movement in any direction on the part of the said arm. I may, if I so desire it, remove the shoe, with its colter, and bolt or otherwise fasten to the lower end of the shoe-carrying arm a brush. Connected to the opposite shoe-carrying arm is a wire guard or netting Q, which is tightly stretched from arm to arm and extends from the top of the arm to the under side of the shoe G. This guard or netting serves as a fender to displace a person or obstacle in the way of an advancing car. Bearing on the top of the arm L and against the under side of the platform of the car is a coiled or helical spring L' to hold the shoes tightly in contact with the rail when required.

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

1. A track-cleaner consisting of a rock-shaft, a shoe-carrying arm mounted on each end of the rock-shaft, a cleaning-shoe connected to the lower end of each arm and arranged to scrape the top of the rails, and a netting connected to the said arms and extending across the under side of the car-truck, substantially as specified.

2. A track-cleaner consisting of a rock-shaft, a shoe-carrying arm mounted on each end of the rock-shaft, a cleaning-shoe connected to the lower end of each arm and arranged to scrape the top of the rail, a colter

connected to each shoe and extending down the side of the rail, and a netting connected to the said arms extending across the under side of the car-truck, substantially as specified.

3. A track-cleaner consisting of a rock-shaft, a shoe-carrying arm mounted on each end of the rock-shaft, a cleaning-shoe connected to the lower end of each arm and arranged to scrape the top of the rails, a moldboard connected to each arm and shoe, and a netting connected to said arms and extending across the under side of the car-truck, substantially as specified.

4. A track-cleaner consisting of a rock-shaft, a shoe-carrying arm mounted on each end of the rock-shaft, a cleaning-shoe connected to the lower end of each arm and arranged to scrape the top of the rails, a colter connected to each shoe and extending down the side of the rails, a moldboard connected to the arm and shoe, and a netting connected to said arms and extending across the under side of the car-truck, substantially as specified.

5. The combination of the car-truck of an arm depending from each side of the car-truck into close proximity with the rail, a cleaning-shoe carried by each of the depending arms, and a netting connected to the said arms and extending across the under side of the car-truck, substantially as specified.

Toronto, April 18, A. D. 1895.

ROBERT LESLIE.

In presence of—

C. H. RICHES,
J. E. CAMERON.