No. 742,786. PATENTED OCT. 27, 1903.

E. K. GREEN.

MEANS FOR LUBRICATING THE RAILS OF STREET CARS.

APPLICATION FILED MAR. 4, 1903.

NO MODEL.

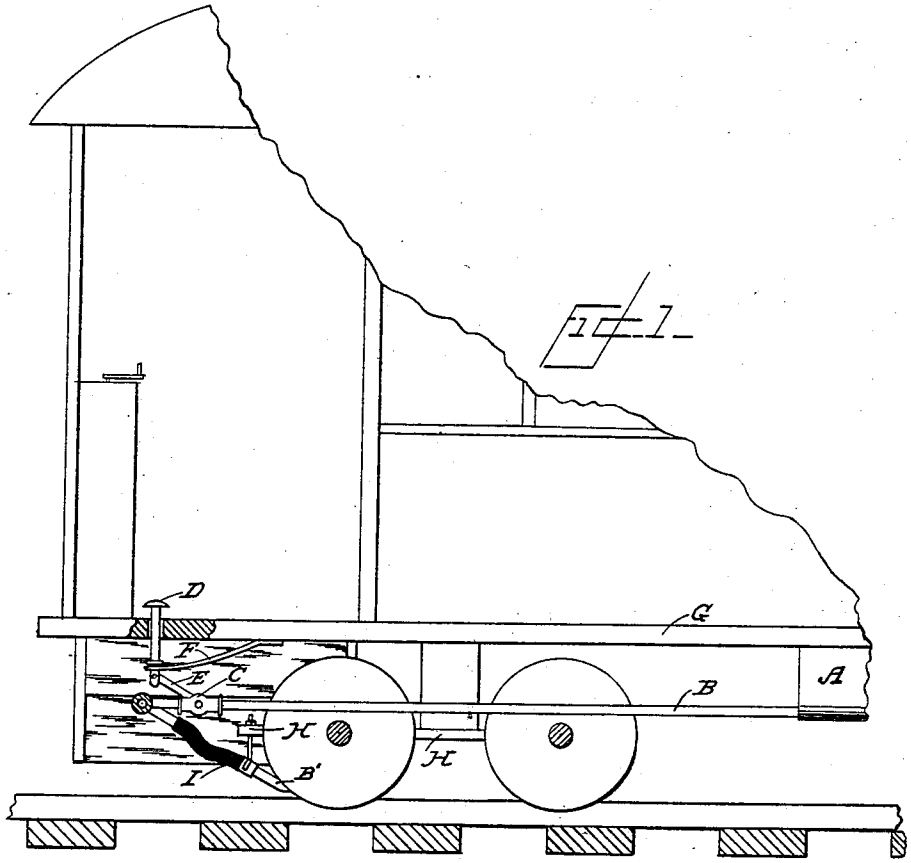


Fig. 1.

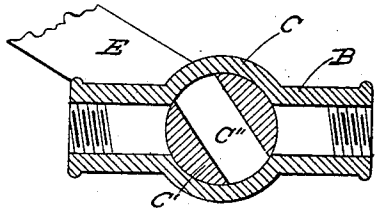


Fig. 2.

Witnesses.
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No. 742,786. Patented October 27, 1903.

UNITED STATES PATENT OFFICE.

ELISHA K. GREEN, OF LOS ANGELES, CALIFORNIA.

MEANS FOR LUBRICATING THE RAILS OF STREET-CARS.

SPECIFICATION forming part of Letters Patent No. 742,786, dated October 27, 1903.

Application filed March 4, 1903. Serial No. 146,195. (No model.)

To all whom it may concern:

Be it known that I, ELISHA K. GREEN, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Means for Lubricating the Rails of Street-Cars, of which the following is a specification.

My invention relates more particularly to means to prevent the disagreeable noise occasioned by the cars in turning around curves; and the object of my invention is to provide convenient means to lubricate the rail, and thereby cause the cars to run around these curves easily without undue wear and without making the objectionable noise usually made thereby. I accomplish this object by means of the device herein described, and shown in the accompanying drawings, in which—

Figure 1 is a side elevation of the front end of a street-car having my lubricating device secured thereto. Fig. 2 is a central longitudinal section of a valve located on the pipe extending from the supply-tank.

In the drawings, A represents the supply-tank for holding lubricating liquid, suitably attached beneath the center of the body of the car. Running from the supply-tank toward both ends of the car are the discharge-pipes B, which terminate at a point immediately in front of the front wheels on both sides of the truck front and rear and close to the point of contact between the wheel and the rail, whereby any liquid substance discharged from the discharge end B′ of the pipe B will be deposited on the rail immediately in front of the point where the wheels contact with the rails and properly lubricate the same. The discharge-pipe is secured to the frame G of the car, while the nozzle portion B′ thereof is secured to the frame H of the truck. Between the supply-pipe B and the nozzle-piece B′ thereof I have provided a flexible portion I, preferably made of rubber, to permit the truck of the car to swing around on its pivoted connection with the frame when turning curves and maintain communication between the pipe B and the nozzle B′ thereof, attached to the truck, the object being to keep the discharge end of the nozzle in the same position with relation to the wheel and the rail. Arranged on the supply-pipe B is the cut-off valve C. This valve is operatively connected with the vertically-operated foot-piece D, as follows: The valve-lever E, rigidly secured to the valve-stopper C′, is operatively connected with the foot-piece D at the lower end thereof, whereby any downward movement of the foot-piece will operate to depress the lever E, throwing the opening C″ in the valve into alinement with the opening through the pipe D, and thereby permit the contents of the supply-tank A to discharge itself at the nozzle B′ of the discharge-pipe B. This valve C is kept in a closed position by the upward tension of the spring F, which holds the foot-piece D in its elevated position, as shown in the drawings, in which position communication will be closed through the supply-pipe B. The foot-piece D projects through the floor of the car in such a location as to render it of easy access to the foot of the motorneer. When the car is approaching a curve in the track, he can place his foot upon the foot-piece D and press downwardly thereon. This will open communication through the pipe B, when the contents of the supply-tank will run through and be discharged on the rails as long as the motorneer keeps his foot on the foot-piece. Immediately upon the removal of his foot therefrom the valve will close the opening through the pipe B and stop discharging the contents from the supply-tank. I have found in experimenting with various liquids, including various oils as well as water, that water is admirably adapted for such use. I have shown the discharge-pipe and shut-off valve at one end only of the car; but to properly equip a car with my lubricating device it will be necessary to place a discharge-nozzle before each of the two outer wheels of the truck at both ends of the car and to place a foot-piece at both ends of the car, the discharge-pipe connecting with the nozzle so that the rails can be lubricated from the car when going in either direction.

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

1. In combination with a street-car a reservoir disposed beneath the floor thereof; a discharge-pipe leading therefrom and having

a discharge-orifice in front of the front wheels and close to the point of contact between the rail and the wheel; a flexible connection on said pipes; a cut-off valve on said pipe, means to operate said valve by the motorneer of the car.

2. In combination with a street-car, a supply-tank secured to the bottom of the frame of said car, discharge-pipes secured to the frame of the cars leading from the bottom of said tank to a point immediately in front of the wheels of the car; cut-off valves on said pipes; a discharge-nozzle on said pipes having discharge-openings directed to the point of contact of the wheel with the rail, the nozzle being secured to the frame of the truck; said pipes having a flexible connection between the valve on the pipes and the nozzle.

In witness that I claim the foregoing I have hereunto subscribed my name this 24th day of February, 1903.

ELISHA K. GREEN.

Witnesses:

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MARGARETE C. NICKELESON.