T. P. SMYTH.

Railway-Track Lubricator.

No. 219,028. Patented Aug. 26, 1879.

Fig. 1

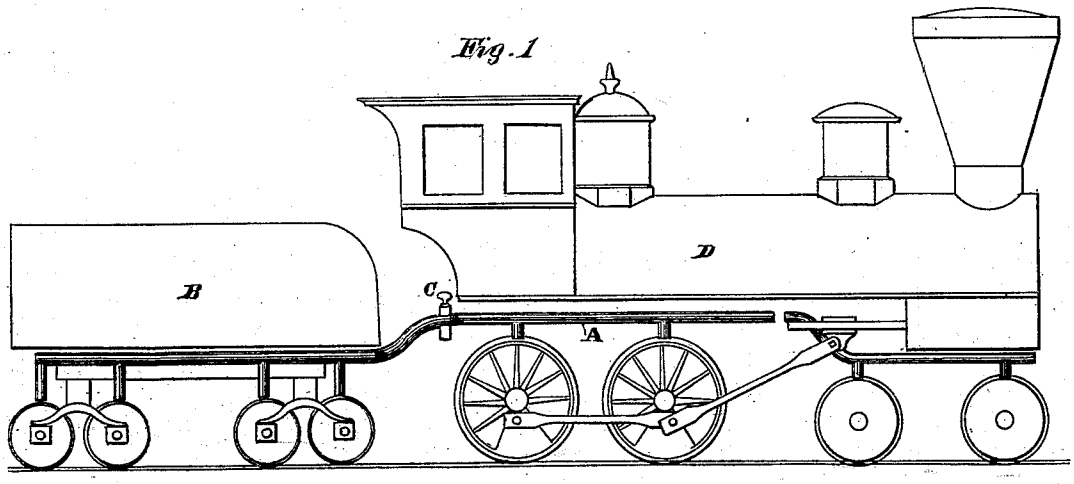
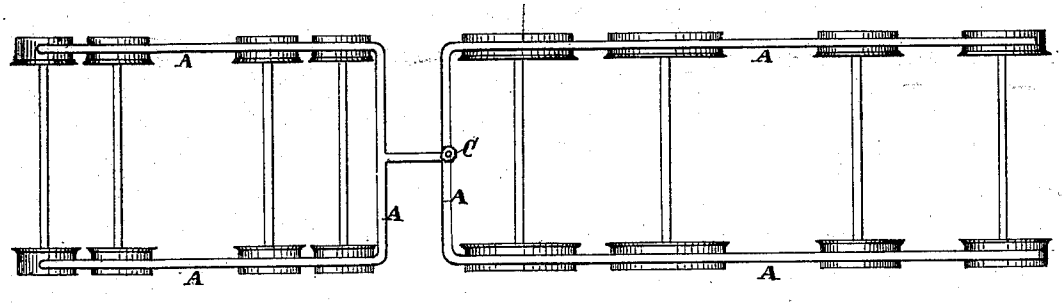


Fig. 2



Witnesses

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UNITED STATES PATENT OFFICE.

TOM P. SMYTH, OF CUFFEY'S COVE, CALIFORNIA.

IMPROVEMENT IN RAILWAY-TRACK LUBRICATORS.

Specification forming part of Letters Patent No. **219,028**, dated August 26, 1879; application filed January 31, 1879.

To all whom it may concern:

Be it known that I, TOM P. SMYTH, of Cuffey's Cove, county of Mendocino, and State of California, have invented a Railroad-Track Lubricator; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings.

My invention relates to a novel method for preventing the retarding friction which usually occurs between the moving trains upon railways and the rails where curves exist; and it consists in the application of water to the rails and wheels in such a manner as to prevent in a great measure this retarding friction, while at the same time allowing sufficient direct adhesion for the purposes of traction.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a view of a locomotive having my apparatus attached. Fig. 2 is a skeleton plan.

I have shown in the present case a device for lubricating the rails at pleasure at points either before or behind the driving-wheels. It consists in the employment of tubes or pipes A, which lead water from suitably-located tanks or the tender B. These pipes may be arranged upon each side of the engine D and tender, and are provided with stop-cocks C, so that water may be permitted to flow upon the track either at the forward truck of the engine or at the driving-wheels, or behind them. In most cases it will be found better to allow the water to be discharged upon the top of the tender-wheels, so as to flow and be carried down to the track, wetting the flanges of the wheels at the same time. This will relieve all or a great part of the friction upon the rails, and especially in reversed curves and upon sharp grades. In most cases it will be found best to lubricate or wet the rails behind the driving-wheels, so that these wheels may retain their full adhesive contact with the rails, and thus have the power to draw the train, while by reducing the friction upon the wheels of the train itself it will draw easier.

Various modifications of my invention may be employed, and these will readily suggest themselves to any skilled mechanic, the object of the application being to reduce the friction between the wheels of a train and the rails by an application of water at the instant of passing, while the water will be dried away before the arrival of the next train, so as not to prevent it from passing.

As the wheels of a railway-car are secured to the axle, it will be seen that when passing curves an enormous friction is caused by reason of the outer wheels passing over a larger curve than the inner ones, which causes them to slip and climb upon the rail, and this friction reduces the tractive force of the engine, so that but a small proportion of its power is exerted upon the load.

Practical use upon a road has shown me that my invention will greatly increase the duty which the locomotive will perform.

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

1. The tubes or pipes A, connected with the tender or tank B, and provided with the stop-cocks C, said pipes being led along the line of the rails, so as to discharge water upon them at will, substantially as and for the purpose herein described.

2. The locomotive D and the tender or tank B, in combination with the tubes or pipes A and the controlling-cock C, whereby water may be discharged upon the wheels or the lines of the rails and reduce the friction, substantially as and for the purpose herein described.

TOM P. SMYTH.

Witnesses:
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