M. F. CRAIG.

Sprinkler for Railroad-Rails.

No. 221,527. Patented Nov. 11, 1879.

Fig. 1

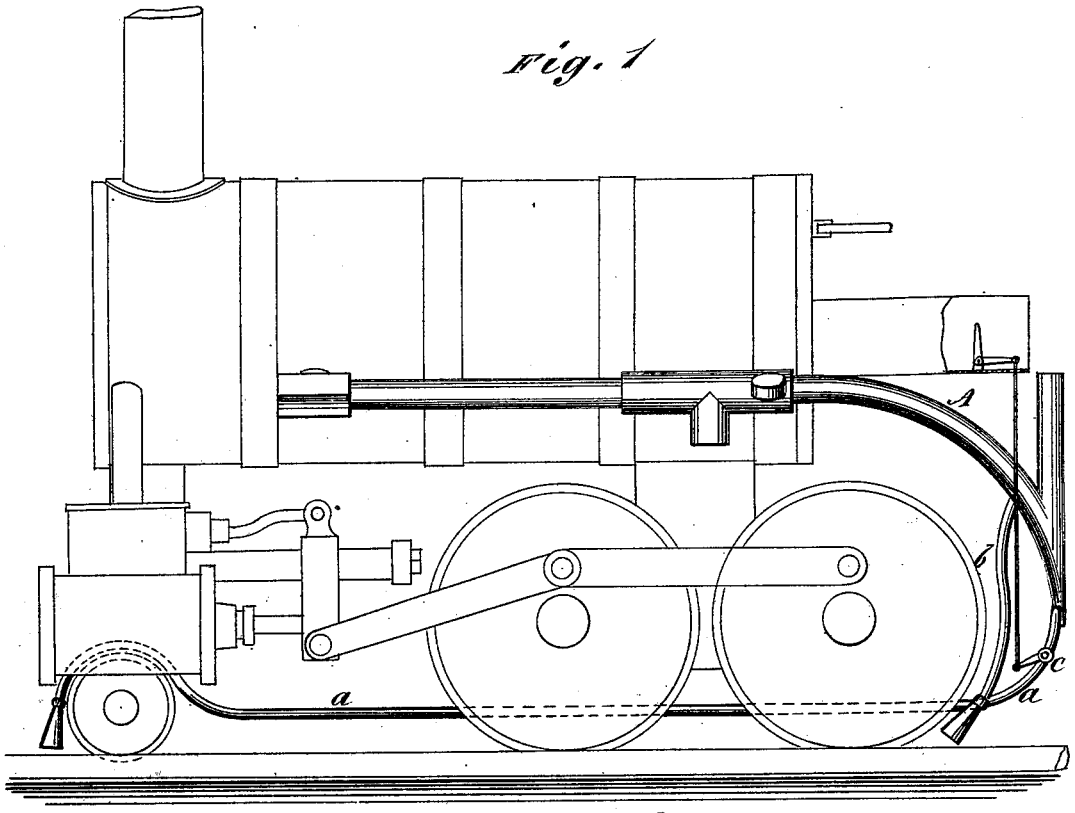
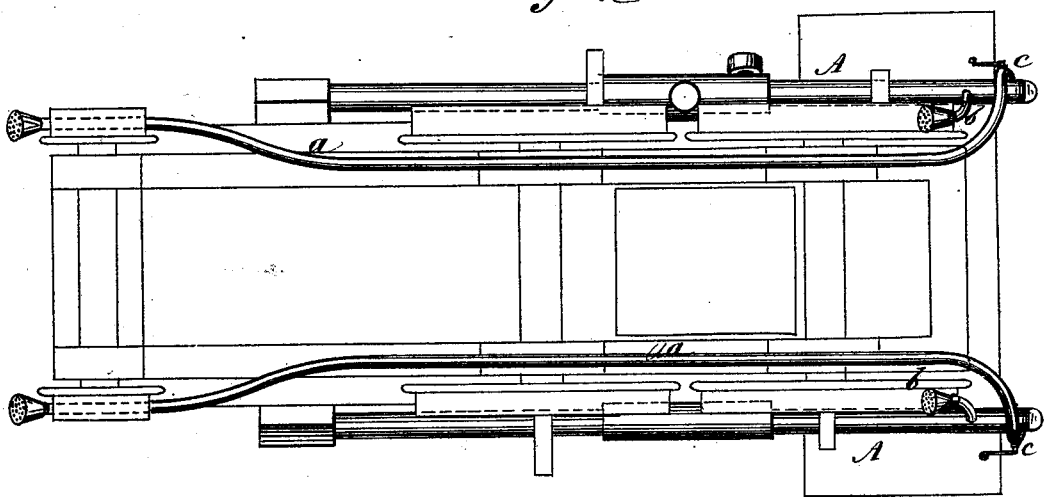


Fig. 2



WITNESSES:

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UNITED STATES PATENT OFFICE

MICHAEL F. CRAIG, OF NEVADA CITY, CALIFORNIA.

IMPROVEMENT IN SPRINKLERS FOR RAILROAD-RAILS.

Specification forming part of Letters Patent No. **221,527**, dated November 11, 1879; application filed August 28, 1879.

To all whom it may concern:

Be it known that I, MICHAEL F. CRAIG, of Nevada City, in the county of Nevada and State of California, have invented a new and Improved Sprinkler for Railroad-Rails, of which the following is a specification.

The object of my invention is to lessen the friction between the wheels of a railway-train and the rails, thereby effecting a saving in motive power and in wear and tear on rolling-stock and track.

On the curves of a railroad the tendency of the wheel on the outside of the curve is to bind and climb the rail, while the wheel on the inside of the curve slides more or less on the rail. When the rails are wet the tendency of the outside wheel to climb is less, and the inner wheel slips easier, in each case saving friction, motive power, and wear, and faster time may be made with the same degree of safety.

My invention consists in the combination, with a locomotive, of apparatus for sprinkling or wetting the rails either in front or behind the driving-wheels, as circumstances may require, the apparatus being under control of the driver.

The construction and operation will be more particularly explained with reference to the accompanying drawings, wherein—

Figure 1 is a side elevation of a locomotive having the sprinkler combined with it. Fig. 2 is an inverted plan view of the same.

Similar letters of reference indicate corresponding parts.

A A are the main feed-water pipes of the locomotive. The sprinkler-pipes *a a b b* are connected to pipes A at each side, the pipe *a* at each side passing to the front and over the forward truck, while the pipe *b* at each side passes down behind the rear driving-wheel. The pipes *a b* terminate near the rail, and are fitted at their ends with rose-jet nozzles. The pipes *a* should have a section of rubber or other flexible pipe to allow for the swing of the trucks, and these pipes are to be fitted with cocks, as shown at *c*, with rods passing to the cabs for cutting off the flow of water from either or both pipes.

In practical operation the pipes *b* will seldom be required, except when the engine is backing or at a road-crossing, where the rail is covered with dirt. In the latter case wetting the rails might cause the drivers to slip, to prevent which pipes *a* will be cut off and pipes *b* opened at the crossing.

The pipes *a* will supply a continuous stream of water upon the rails, or the rails may be wet only at the curves. The effect is, as before mentioned, the friction is reduced between the wheels of the train and the rails, and, further, the brakes will act with better effect than when the train is running on dry rails.

On narrow-gage railroads, where the curves are usually sharp, the invention will be especially useful by reducing the wear and grind at the curves, thus saving the motive power and giving longer life to the wheels and rails.

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

The combination, with a locomotive, of apparatus for wetting the rails, consisting of the pipes *a* or *b*, connected with the feed-water pipe A, and provided with cocks *c*, substantially as described and shown.

MICHAEL FRANCIS CRAIG.

Witnesses:
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