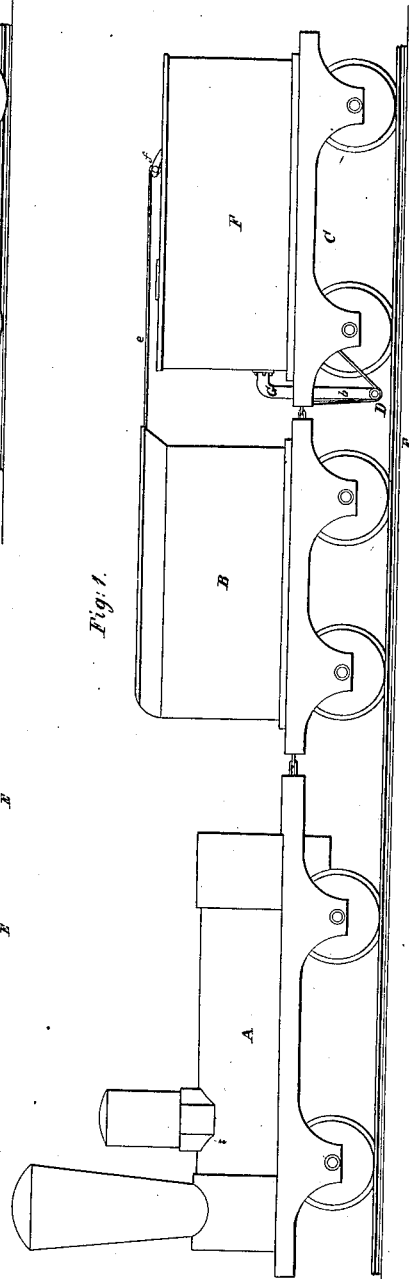
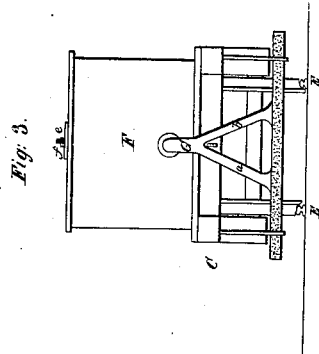
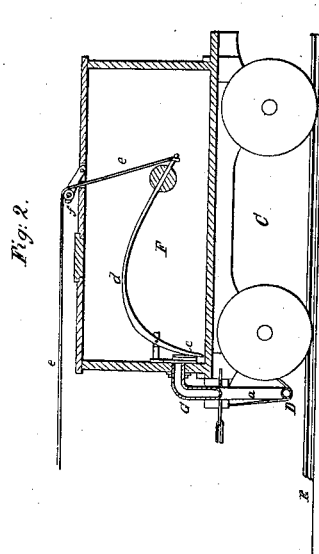


W. Ross & W. E. Rutter
 Watering R. R. Tracks
 N^o 5,584. Patented May 16, 1848.



UNITED STATES PATENT OFFICE.

WM. ROSS AND WM. E. RUTTER, OF PROVIDENCE, RHODE ISLAND.

TENDER FOR LOCOMOTIVES.

Specification of Letters Patent No. 5,584, dated May 10, 1848.

To all whom it may concern:

Be it known that we, WILLIAM ROSS and WILLIAM E. RUTTER, of Providence, in the county of Providence and State of Rhode Island, have made a new and useful Improvement or Application to Railway-Trains of Apparatus for Watering the Track; and we do hereby declare that the same is fully described and represented in the following specification and accompanying drawings, letters, figures, and references thereof.

Of said drawings Figure 1, exhibits a side elevation of a locomotive engine, tender, and water car. Fig. 2, is a vertical central, and longitudinal section of the said water car. Fig. 3, is an end view of it, exhibiting the sprinkling apparatus or water discharger.

Our improvement consists in combining with the water tank of the tender of a locomotive engine an apparatus for sprinkling water on the railroad track in order that the said water may be made to continually fall upon the track in advance of all the wheels of the passenger cars or cars drawn by the engine. Or instead of combining the said apparatus with the tank of what is usually termed the tender, or car for carrying both fuel and water, we make use of a separate tank mounted on a carriage, and wheels, and affix said apparatus to it. Our object in using the said watering apparatus in the above manner is to diminish friction (on the rails) of the cars drawn by the engine, and by so doing to diminish the power of traction, also to prevent the dust of the road or track from being raised by the wheels, or passage of the train. The dust so produced is found to be a serious annoyance to passengers, besides being very injurious to the boxes or bearings and other parts of the cars. We have met with the most unprecedented and unlooked for results, in the use of our improvement on the railway extending from Providence to Stonington in Connecticut. With but a very small quantity of water, about two thousand gallons, we are enabled to effectually water the whole of the track of the Stonington railroad, while the train is moving at the rate of about twenty miles per hour. A thin film of water is deposited on the surface of the rails and road bed, so that while the locomotive engine is always traveling over rails

unwet, or in a comparatively dry state, the wheels of the cars drawn by it, are moving on the watered or wet part of the rails, as all wheels of the cars drawn by the engine have a constant tendency to slide on the rails, which sliding tendency is increased or diminished, according to the imperfection or perfection with which their journals are lubricated, the water prevents them to a great degree from being worn, besides diminishing the friction of their passage on the rails. By our improvement the labor of cleaning the carriages or removing dust, is diminished to a very great extent.

In the said drawings, A, denotes the locomotive engine, B, the tender, and, C, an additional water tender or car.

D, is a pipe suspended horizontally in front of the forward wheels, of the tender C, and just above the rails of the track, said pipe extends transversely across the track and a short distance beyond each or on the outside of each of the rails E, E, as seen in Fig. 3. Said pipe should be punctured with a great number of perforations or holes sufficient to spread into spray the water which may be supposed to flow into the pipes and through them. Said pipe is connected with the water tank F, by means of a pipe G which may have two branches *a*, *b*. On the end of said pipe which enters the tank there should be a lever valve *c*, the lever *d*, of which should have a cord *e*, leading from it, over a pulley *f*, and thence to the vicinity of the engine man, in order that the said valve may be under his control. The discharging apparatus may be applied in a similar manner to the main tender when constructed of sufficient size. It should have its perforations arranged so as to thoroughly wet the upper surface of the rails and road bed in the immediate vicinity thereof.

We are aware that there is nothing new in a watering apparatus as used on common streets or roads, we therefore lay no claim to such, but that which we do claim is—

1. The combination of a sprinkling or watering apparatus, substantially such as above described, with the tank of a tender or a locomotive engine and train of a railway.

2. We also claim the manner in which we arrange, combine or apply a water discharg-

ing apparatus to a train of railway cars,
viz, in advance of the cars and wheels drawn
by the engine, or between them and the en-
gine or drawing power; whereby the rails
5 and road bed are wet for the purpose of di-
minishing friction of the working parts and
keeping down the dust, as specified, while
the train is in motion on the track.

In testimony whereof we have hereto set
our signature this fourth day of August 10
A. D. 1847.

WILLIAM ROSS.
WILLIAM E. RUTTER.

Witnesses:

JAMES C. HIDDEN,
GEORGE M. DAVIS.