

Patented July 19, 1870.

Q

Carlos Ortiz
Hilario Valladares

for Lemuel W. Perrell

WITNESSES
Chas H Smith,
Geo D. Walker.

United States Patent Office.

CARLOS ORTIZ AND HILARIO VALLADARES, OF MATANZAS, CUBA.

Letters Patent No. 105,593, dated July 19, 1870.

IMPROVEMENT IN RAILWAY-RAIL CLEANERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, CARLOS ORTIZ and HILARIO VALLADARES, of Matanzas, in the Island of Cuba, have invented an Improvement in Rail-Cleaners for Railroad-Tracks; and the following is declared to be a correct description of the same.

Sand-boxes are usually employed, especially with freight-engines, for supplying sand upon the surface of the rails in front of the driving-wheels, in order to increase the traction, and prevent the wheels slipping upon the rails. The sand and gritty particles, remaining upon the track, are detrimental, because they cause wear of both the rails and the wheels of the cars, and are an obstruction to the free rolling of the wheels upon the track, so that considerable loss of power arises, because the engine has to overcome a resistance that would not exist if the track was cleaned of such gritty particles.

Our invention is to clean the track of the sand and foreign substances behind the driving-wheels, and lubricate that track by moisture.

To effect these objects we provide a pipe connecting with a suitable cock upon the steam-space of the boiler, said pipe branching out, so as to terminate near the track, and just behind the driving-wheels; and at the ends of said branches, ferrules are attached, with small orifices, so that a sufficiently rapid jet of steam will be directed upon the track to blow off from the same the gritty particles that may remain of the sand supplied in front of the driving-wheels, so as to clean the track, and, at the same time, any condensation that there may be of the steam upon the track serves to lubricate the same, and lessen friction of the wheels of the cars.

In the drawing—

Figure 1 shows a portion of the locomotive and one of the hind driving-wheels;

Figure 2 is a rear view, showing the mode of applying our improvement; and

Figure 3 is a section at the end of one of the pipes, showing the ferrule.

The ordinary parts of the engine do not require description.

The pipe *b* is connected to the cock *a*, and is branched off and terminates with the perforated ferrules *c*, (see fig. 3,) above the rails *d*, and in rear of the driving-wheels *e*.

The pipe *i* is represented as running down in front of the driving-wheel, to supply sand from the sand-box, as usual.

We do not claim the use of a steam-pipe in front of the driving-wheels of a locomotive-engine to clear the track of snow, grease, or other material that would obstruct the action of the driving-wheels.

What we claim as our invention is—

The arrangement, in a locomotive-engine, of steam-pipes and nozzles behind the driving-wheels, in combination with the sand-pipes in front of the driving-wheels, as and for the purposes specified.

In witness whereof we have hereunto set our signatures this 25th day of February, A. D. 1870.

CARLOS ORTIZ.

HILARIO VALLADARES.

Witnesses:

José M. Posé,

Luis D. Pon.