(No Model.)

E. W. McKENNA.

MEANS FOR CLEANING AND LUBRICATING RAILROAD TRACKS.

No. 346,303. Patented July 27, 1886.

Fig. 1.

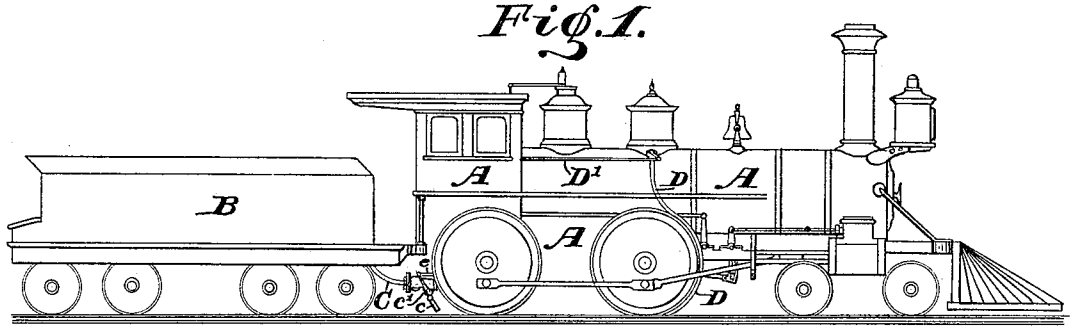


Fig. 2.

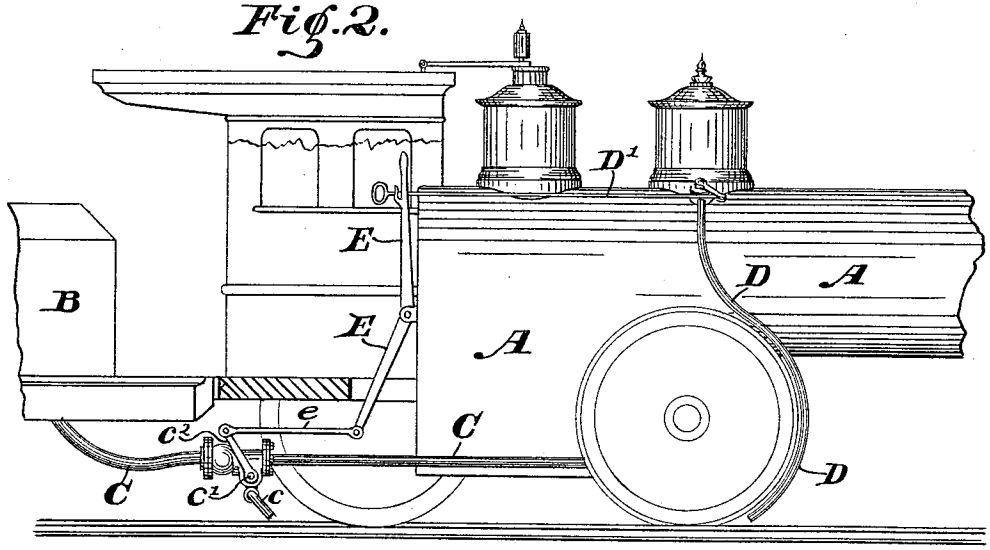


Fig. 4.

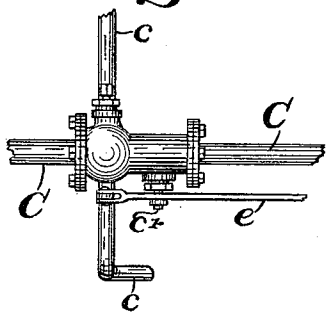


Fig. 3.

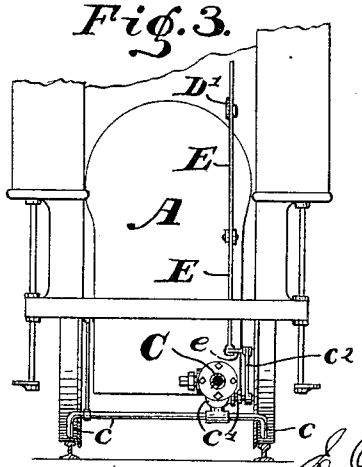
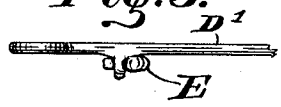


Fig. 5.



WITNESSES.

Chas. McLeonard.

Charles L. Thurber.

INVENTOR.

E. W. McKenna,

PER

C. Bradford,

ATTORNEY.

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

EDWARD W. McKENNA, OF LOUISVILLE, KENTUCKY.

MEANS FOR CLEANING AND LUBRICATING RAILROAD-TRACKS.

SPECIFICATION forming part of Letters Patent No. 346,303, dated July 27, 1886.

Application filed December 15, 1885. Serial No. 185,781. (No model.)

To all whom it may concern:

Be it known that I, EDWARD W. McKENNA, of the city of Louisville, county of Jefferson, and State of Kentucky, have invented certain new and useful Improvements in Means of Cleaning and Lubricating Railroad-Tracks, of which the following is a specification.

In the operating of railroad-trains, as is well known, it frequently becomes necessary to "sand" the track, especially on curves and upgrades, in order to produce sufficient traction to enable the locomotive to draw the load. After the locomotive has passed, the sand upon the track operates disadvantageously, as it creates additional friction between the wheels of the remainder of the train and the rails of the track, and also operates to wear said wheels and said rails. It also frequently happens, especially in dry and windy weather, that a considerable amount of light sand and dirt is blown upon the rails, which operates to some extent in like manner.

The object of my present invention is to provide a means whereby the sand, after having served its purpose by acting upon the driving-wheels of the locomotive, shall be removed from the rails, and the rails also lubricated to some extent, thus facilitating the passage of the train.

It consists in providing a nozzle connected with the feed-water pipes leading from the tender, arranged to discharge water upon the wheels directly behind the driving-wheels of the locomotive, and means for operating the same, as will be hereinafter more particularly described and claimed.

Referring to the accompanying drawing, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a side elevation of a locomotive and its tender; Fig. 2, a longitudinal sectional view through the rear portion of the locomotive; Fig. 3, a rear elevation of the locomotive; Fig. 4, a detail plan view of the pipe and nozzles, and Fig. 5 a similar view of the handle portions of the rod and lever for operating the sand-valve and the water-valve.

In said drawings, the portions marked A represent the locomotive; B, the tender; C, the water-pipes leading from the tender to the locomotive; D, the sand-pipes leading from the usual sand-dome of the locomotive down to near the track in front of the locomotive drive-wheels, and E a lever.

The locomotive A and tender B are or may be of the usual and well-known construction, and need no special description, as are also the sand-dome, the sand-pipe D leading therefrom, and the rod D′, by which the valve in said sand-pipe is operated. The pipes C lead, in the usual manner, from the tender to the locomotive. At a point beneath the cab, preferably just in the rear of the locomotive driving-wheels, are provided nozzles *c*, which are arranged to discharge directly upon the rails in the rear of said driving-wheels. These nozzles are preferably arranged on branches of a single pipe, as shown, (see particularly Fig. 3,) although one may be attached to each of two pipes leading from the tender to the locomotive. In the arrangement shown, however, a single valve is all that is necessary to control the discharge of water. The stem *c′* of this valve is provided with an arm, c^2, which is connected by means of a connecting rod or link, *e*, to the lower end of the lever E, which extends up into the cab, where the engineer or fireman can conveniently operate it.

While I prefer the arrangement shown and just described, it is obvious that any arrangement of links, rods, and levers that might be desired may be employed instead, as this is a matter of mere arrangement and not essential.

The handle or lever E may be connected to or be the handle by which the valve of the sand-pipe is operated, (through its rod D′,) so that the discharge of sand and of water may be produced simultaneously. They may also be arranged separately or separably, and the latter is my preferred construction, and is shown as produced by the interlocking of a branch, *e′*, on the lever and a similar branch, *d′*, on the rod D′, which, as will be readily seen, are easily separable.

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

1. The combination of a locomotive, its tender, the water-pipes leading from said tender to said locomotive, and one or more nozzles or branches on said water-pipe, arranged to discharge onto the rails in the rear of the loco-

motive driving-wheels, a valve controlling the discharge from said nozzle, and means for operating said valve, substantially as set forth.

2. The combination, with a locomotive, its tender, and water-pipes, of a nozzle arranged to discharge onto the track in the rear of the locomotive driving-wheels, a valve or cock for closing said nozzle, a handle or lever arranged in the cab, and connections between said valve and said handle or lever, substantially as set forth.

3. The combination, with the locomotive, tender, water-pipes connecting said tender, and the ordinary sand dome and pipe, of a nozzle connected with the water-pipes, arranged to discharge onto the rails behind the driving-wheels of the locomotive, and means for controlling the discharge of water through said nozzle, substantially as set forth.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 5th day of December, A. D. 1885.

EDWARD W. McKENNA. [L. S.]

In presence of—

C. BRADFORD,

E. M. JOHNSON.