

P. K. DEALY.

Apparatus for Cleaning Locomotive Ash-Pans.

No. 168,884.

Patented Oct. 19, 1875.

Fig. 1.

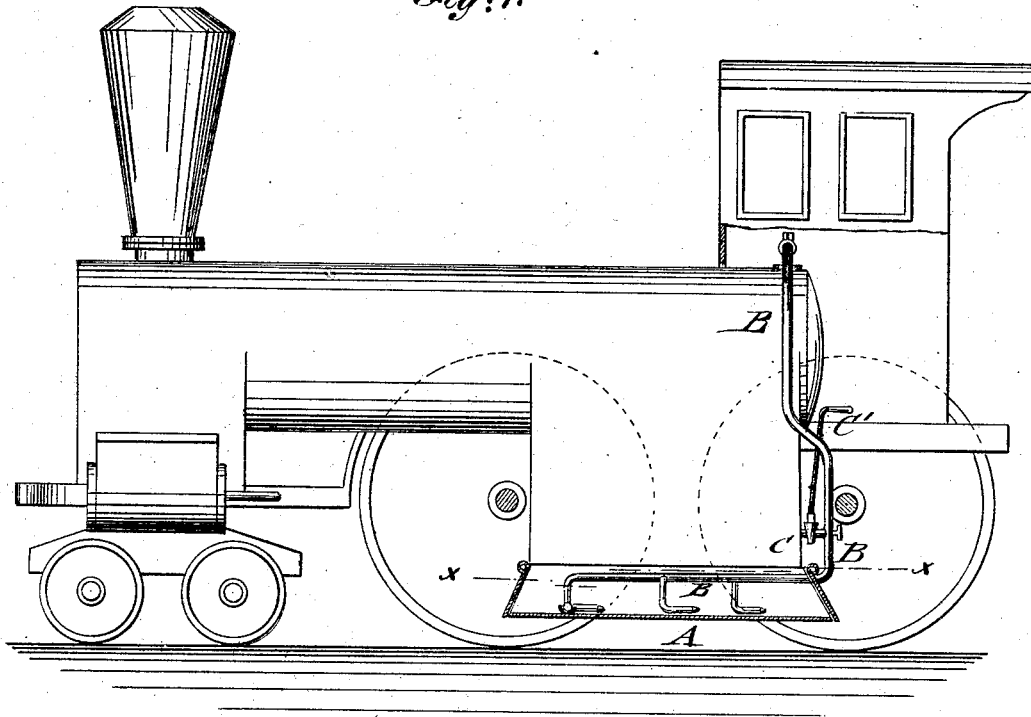
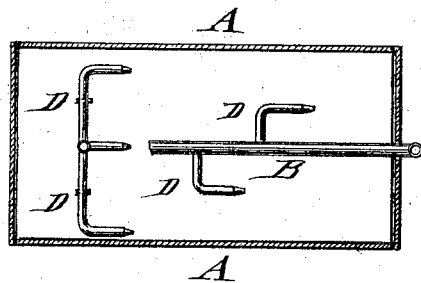


Fig. 2.



WITNESSES:

Cros. Nida.
A. J. Terry

INVENTOR:

P. K. Dealy

BY

Munnell

ATTORNEYS.

UNITED STATES PATENT OFFICE.

PAUL K. DEALY, OF ST. JOHN, CANADA.

IMPROVEMENT IN APPARATUS FOR CLEANING LOCOMOTIVE ASH-PANS.

Specification forming part of Letters Patent No. 168,884, dated October 19, 1875; application filed September 17, 1875.

To all whom it may concern:

Be it known that I, PAUL K. DEALY, of St. John, in the Province of New Brunswick and Dominion of Canada, have invented a new and Improved Locomotive Ash-Pan, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a side elevation of a locomotive with my improved ash-pan shown in longitudinal section, and Fig. 2 is a horizontal section of the ash-pan on the line *xx*, Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention relates to such improvements in locomotive ash-pans by which the cleaning out of the ashes and cinders may be accomplished in reliable and convenient manner, in connection with the boiler, in all seasons of the year, and without the least danger to the burning of the cross-ties. The cleaning out the ash-pan, which is especially troublesome in the winter season, is dispensed with, and the time and labor required therefore economized.

The invention consists of the combination of the steam-boiler of the locomotive by a steam and water pipe with the ash-pan, the pipe extending through the ash-pan and branching out into a number of issuing-pipes, that clean effectually the ash-pan by means of water or steam, as required.

In the drawing, A represents the ash-pan of a locomotive, being made of the usual construction. A steam-pipe, B, extends from the rear end of the ash-pan up to the top part of the boiler, to convey steam to the ash-pan, being so arranged near the cab of the locomotive that the engineer may readily operate the stop-cock of the same. A pipe-connection, C, extends either from the blow-out cock of the boiler, or from a separate cock at the lower part of the same to the pipe B, and is connected, by a suitable handle, C', to the floor of the cab, so that either water or steam may be used in the ash-pan. Pipe B extends longitudinally through the ash-pan, and branches out into a number of downward-extending

pipes, D, with issuing-nozzles bent toward the rear, and arranged to sweep the bottom of the ash-pan in the most effective manner, the nozzles of the front branch pipes being smaller, to throw the water or steam with greater force on the ash-pan, than the rear nozzles for clearing out any of the ashes, cinders, &c., not removed by the rear pipes.

For the purpose of extinguishing the cinders, water is first thrown on the ashes in the pan by opening the water stop-cock. The water-pipe is then closed, and the steam-pipe opened, for cleaning out the ashes entirely from the pan.

The hot-water pipe is especially useful in the winter season, as the snow forms with the ashes a mass difficult to remove, requiring the use of chisel and hammer to clear the pan. The hot water, however, melts the ice quickly, and allows then the use of the steam-pipe for the thorough cleaning of the pan.

As the cinders are extinguished by the water and the ashes moistened there is no danger of burning the cross-ties, and no annoyance by the dust, and the ash-pan may thus be cleaned without extra labor at any time by the engineer, and thus forms a convenient and economical attachment to locomotives.

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

1. The combination of a locomotive ash-pan, by water and steam conveying pipes, with the boiler, to throw water or steam on the pan for heating and cleaning the same, substantially in the manner and for the purpose set forth.

2. The water and steam conveying pipe, passing longitudinally through the ash-pan, and being provided with backward-bent branch pipes, extending to the bottom to throw the water and steam on different points of the pan, substantially as specified.

PAUL K. DEALY.

Witnesses:

JAMES H. HUNTER,
PAUL GOEPEL.