

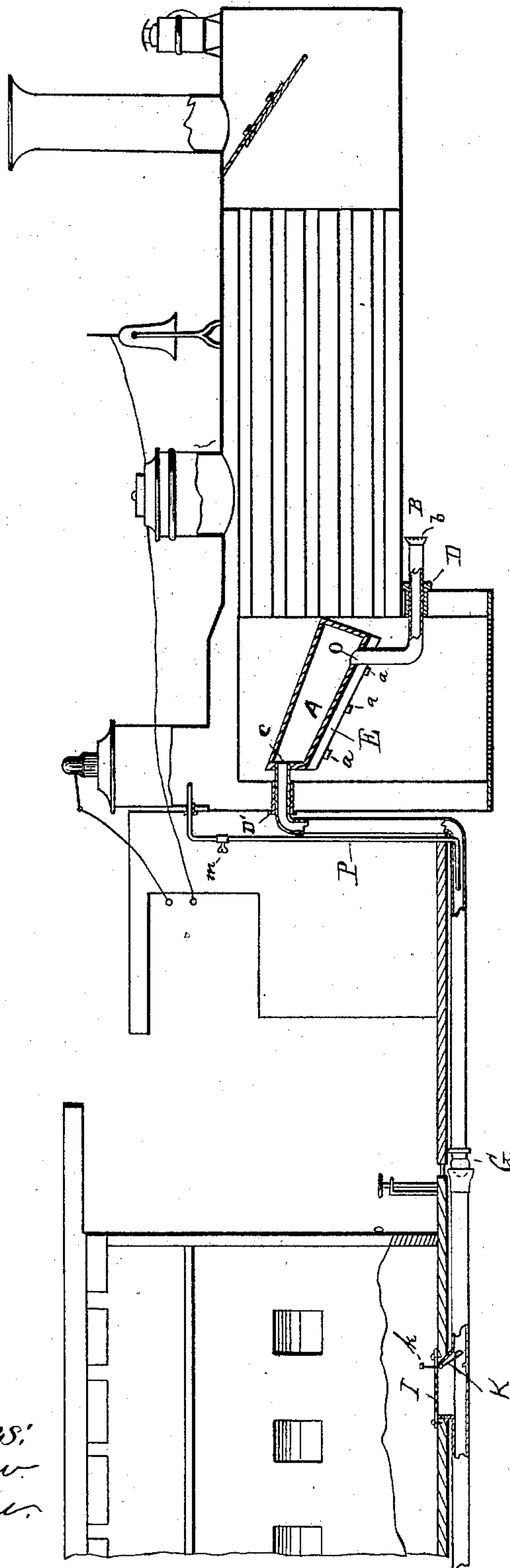
(No Model.)

W. A. LYON & S. L. MOORE.

HEATING RAILWAY CARS.

No. 387,173.

Patented July 31, 1888.



Witnesses:
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Charles F. Rider

Inventors:
William A. Lyon
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UNITED STATES PATENT OFFICE.

WILLIAM A. LYON AND SYLVESTER L. MOORE, OF DANBURY, CONNECTICUT, ASSIGNORS OF ONE-HALF TO JAMES S. TAYLOR AND ABRAHAM T. CLASON, OF SAME PLACE.

HEATING RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 387,173, dated July 31, 1888.

Application filed December 10, 1887. Serial No. 257,556. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM A. LYON and SYLVESTER L. MOORE, citizens of the United States, residing at Danbury, in the county of Fairfield and State of Connecticut, have invented new and useful Improvements in Apparatus for Heating Railway-Cars, of which the following is a specification.

Our invention relates to an apparatus for heating railway-cars; and it consists of constructions and combinations, all as will hereinafter be set forth in the specification and particularly pointed out in the claim, reference being had to the accompanying drawing, which represents a side elevation of a steam-locomotive and a railway-car provided with a heating apparatus embodying our improvements.

A is a section of a hollow metal chamber located in the fire box and held in position by means of lugs *a* on the inside of the fire-box. On the under side of the chamber A, where the heat is greatest, a stratum of fire-brick, E, is placed, to protect the chamber from the heat.

B is a funnel-shaped cold-blast pipe, having a sieve-cap, *b*, over its mouth, which opens at *o* into the chamber A, through which air is drawn to be heated.

C is the distributing-pipe, through which the heated air passes from the metal-chamber to the cars, and is connected with the chamber at *c*.

The funnel-shaped blast-pipe B and the distributing-pipe C are screwed into and through two sleeves, D D', and the sleeves are in turn screwed into and through the two shells of the outer legs of the boiler. These sleeves take the place of several stay-bolts, and the manner in which they are screwed into the boiler-legs strengthens the boiler. The distributing-

pipe C is coupled with the pipe leading into the cars at G. The car-pipe leads to a register, I, through which the heated air enters the car, the register being provided with a valve-damper, K, which has a lever, *k*, to operate it, whereby the supply of hot air to the car can be regulated.

To produce a draft when the locomotive is at rest, we insert a steam-pipe, P, into the dome, and connect it at *p* with the distributing-pipe C. The pipe P is provided with a valve, *m*, to regulate the flow of steam. The steam may be turned on while the locomotive is running as well as when at rest, as it moistens the air and renders it better fitted for respiration.

The operation is as follows: Cold air is taken in through the blast-pipe B and passes into the metal chamber A, where it is heated, and then passes out through the distributing-pipe C and into the car-register I, which is regulated by the damper K.

Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The combination, in a heating apparatus, of the metal chamber A, having underneath protective fire-brick, E, and resting upon lugs *a* on the inside of the fire-box, the cold-blast pipe B and distributing-pipe C, screwed into and through sleeves D D', said sleeves screwed into and through the shells of the outer legs of the boiler, and the steam-pipe P, leading from the dome and connecting with the distributing-pipe leading to the car, substantially as shown and described.

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Witnesses:

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