(No Model.)

W. W. WHITCOMB.

RAILWAY CAR HEATER.

No. 373,626. Patented Nov. 22, 1887.

Fig. 1.

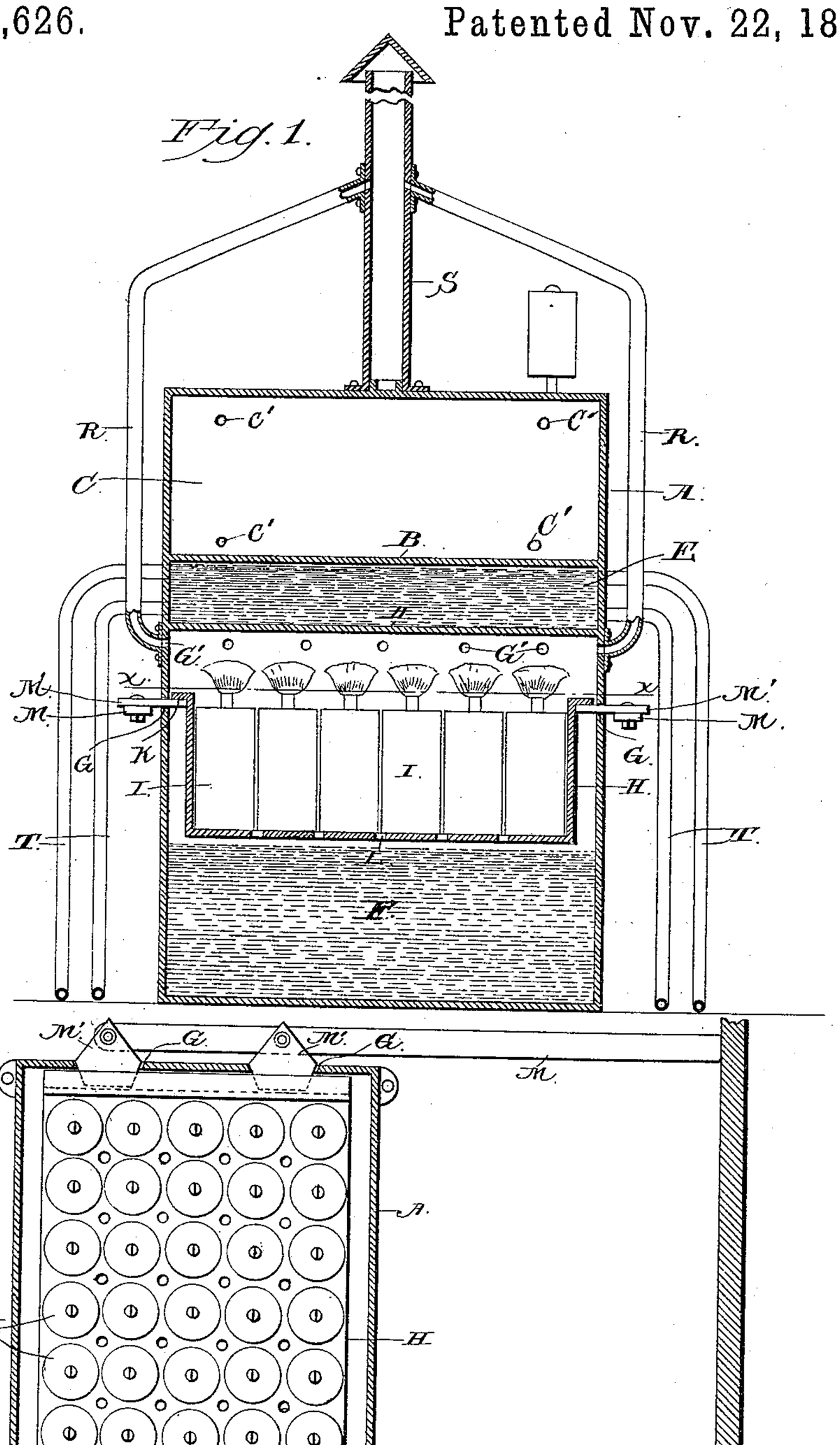

Fig. 2.

Witnesses

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WILSON W. WHITCOMB, OF BATAVIA, NEW YORK.

RAILWAY-CAR HEATER.

SPECIFICATION forming part of Letters Patent No. 373,626, dated November 22, 1887.

Application filed March 30, 1887. Serial No. 233,002. (No model.)

To all whom it may concern:

Be it known that I, WILSON W. WHITCOMB, a citizen of the United States, residing at Batavia, in the county of Genesee and State of New York, have invented a new and useful Improvement in Railway-Car Heaters, of which the following is a specification.

My invention relates to an improvement in railway-car heaters; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the drawings, Figure 1 is a vertical sectional view of a car-heater embodying my improvements. Fig. 2 is a horizontal sectional view of the same, taken on the line *x x* of Fig. 1.

A represents a case, which is made of sheet or plate metal and is of suitable size and shape. The side walls of this case are vertical. At a suitable distance from the upper end of the case is a horizontal diaphragm or plate, B, which forms the hot-air chamber C in the upper side of the case, and at a suitable distance below the diaphragm B is a similar diaphragm, D, which forms a hot-water chamber below the hot-air chamber. The lower portion of the case forms a chamber, F, for cold water. At a suitable distance from the bottom of the case its side walls are provided on opposite sides with horizontal series of aligned openings G.

H represents a tray, in which is located a series of lamps, I. This tray is provided on opposite sides with projecting flanges or ledges K, which bear against the inner sides of the case. The tray has a series of perforations, L, in its lower sides.

The case is located in one corner of the car and is rigidly secured in position. To the end of the car adjoining the case is rigidly attached a pair of bars, M, which are arranged on opposite sides of the case. To these bars are pivoted a series of dogs, M′, which project inward through the openings G and bear under the flanges K of the lamp-tray, thus serving to support the latter in an elevated position in the case, with the bottom of the lamp-tray at a slight distance above the level of the water in the chamber F. These dogs are diamond or lozenge shaped and have their inner ends truncated. The combustion-chamber in the case in which the lamp-tray is located is provided with a series of escape-openings, G′, which communicate with vertical flues or pipes R, that lead to a central flue or pipe, S, which extends upward through the roof of the car and serves to permit the escape of gases, soot, smoke, and other products of combustion.

T represents a series of pipes which are arranged in the bottom of the car and extend under the seats. These pipes communicate with the hot-water chamber E in the heater.

The operation of my invention is as follows: The water in the chamber E is heated by the lamps when the latter are lighted, and is caused to circulate through the pipes T, and thereby heat the interior of the car. Air which enters the chamber C through suitable openings, C′, in the sides of the said chamber becomes heated and is expanded and radiated through the car, thus assisting in warming the latter. In the event of a collision or other railway accident, when the end of the car in which the heater is located is smashed in, the bars M, which are rigidly attached to the end of the car, are moved longitudinally, thereby causing the dogs M′ to be drawn out through the openings G in the case and release their hold on the under side of the flanges K, thus causing the lamp-tray to be dropped into the cold water in the chamber F in the base of the case, and the lamps are immediately extinguished thereby, thus preventing the car from catching fire.

Having thus described my invention, I claim—

1. In a car-heater, the combination of the case A, having the cold-water chamber in its lower side, the lamp-tray or fire-pot, the dogs M′, extending through the sides of the case and supporting the lamp-tray or fire-pot above the water-chamber, and the bars M, secured directly to the side of the car and connected to the dogs to draw out the latter when the car is smashed in, and thereby drop the fire-pot or lamp-tray into the water-chamber, for the purpose set forth, substantially as described.

2. The heater for railway-cars, comprising the case A, having the combustion-chamber,

the hot-water chamber arranged above the combustion-chamber, the hot-air chamber arranged above the hot-water chamber, the flues R, leading from the combustion-chamber, and the flue S, with which the flues R communicate, for the purpose set forth, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILSON W. WHITCOMB.

Witnesses:

FRANK RICHARDSON,

HENRY J. SOLZ.