

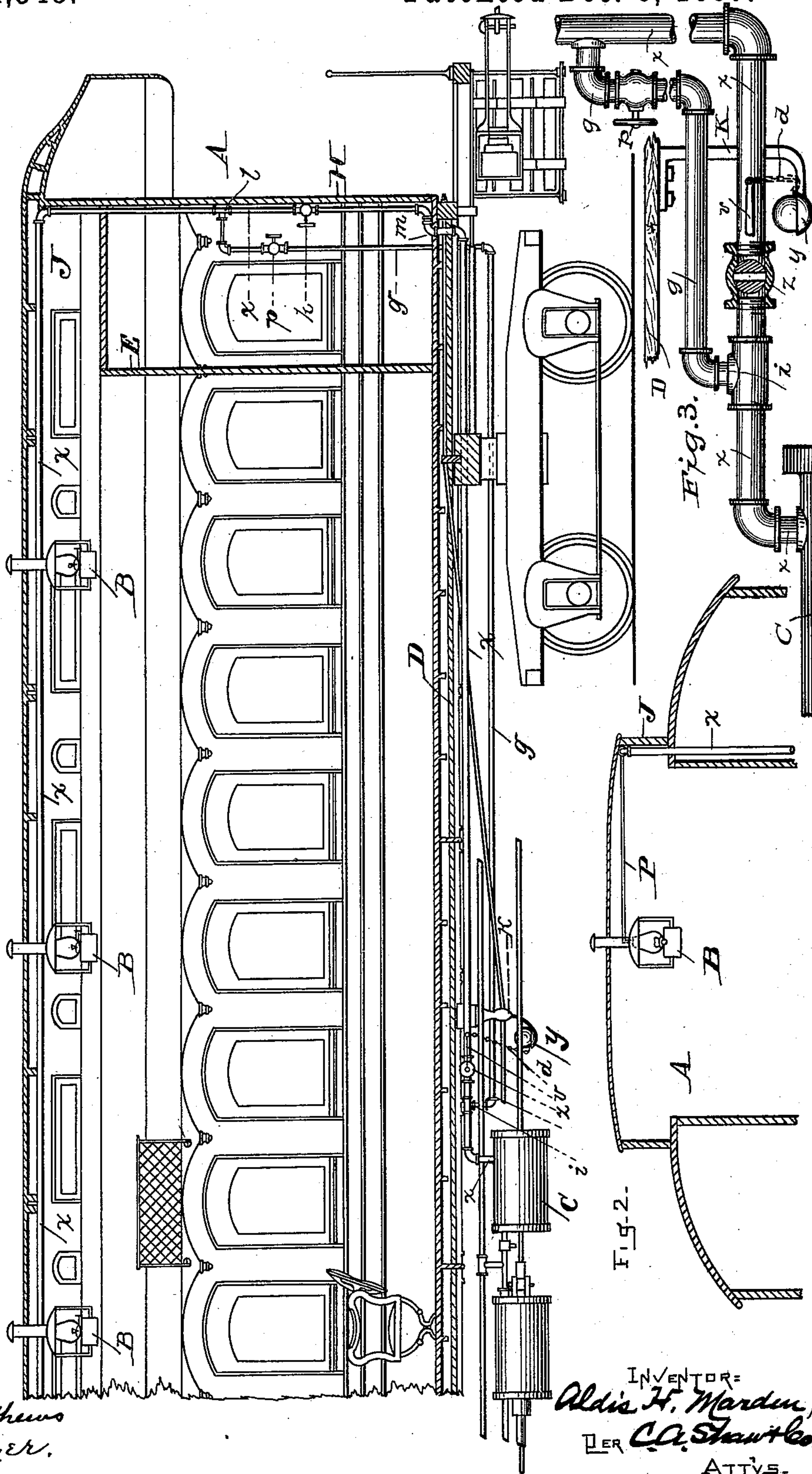
(No Model.)

A. H. MARDEN.
LAMP EXTINGUISHER FOR RAILWAY CARS.

No. 374,548.

Patented Dec. 6, 1887.

Fig. 1.



WITNESSES:
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UNITED STATES PATENT OFFICE.

ALDIS H. MARDEN, OF WALTHAM, MASSACHUSETTS.

LAMP-EXTINGUISHER FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 374,548, dated December 6, 1887.

Application filed May 16, 1887. Serial No. 238,315. (No model.)

To all whom it may concern:

Be it known that I, ALDIS H. MARDEN, of Waltham, in the county of Middlesex, State of Massachusetts, have invented a certain new and useful Improvement in Lamp-Extinguishers for Railway-Cars, of which the following is a description, sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical longitudinal section of a railroad-car embodying my improvement, a portion of the car being represented as broken off; Fig. 2, a vertical transverse section of the top of a car, showing a lamp with my improved extinguisher in position for use; and Fig. 3 is an enlarged view of the essential features of my invention, showing the auxiliary pipe led over the air-pipe and the main valve in section and closed.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention relates more especially to means for automatically extinguishing the lamps in railway-cars in the event of an accident to the train; and it consists in a novel construction and arrangement of parts, as hereinafter more fully set forth and claimed, the object being to produce a simpler and more effective device of this character than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation.

In the drawings, A represents the body of the car, and B the lamps. The body and lamps are of the usual form and construction, excepting as hereinafter specified. The body A is supplied with the ordinary Westinghouse air-brake, or any similar brake which has an auxiliary cylinder, C, in which compressed air is stored in the usual manner.

In my improvement I use the compressed air in the cylinder C for extinguishing the lamps in the car, by means of an air-pipe, *x*, which enters said cylinder preferably at the top and runs along the floor or bottom D of the car, to which it may be secured by any

suitable means, until it reaches the corner of the car, when the pipe is carried upward through the floor D into the interior, as shown at *m* in Fig. 1. I preferably introduce the pipe through the floor D into the toilet-room E, as it disfigures the car less than it would if carried through some other portion. The pipe is extended vertically at the end H of the car until it reaches the roof, where it is bent at right angles and runs along the roof or monitor J, until it has passed all of the lamps B, its end being closed by a cap or any other suitable means. A branch pipe, P, connects the pipe *x* with the chimney of each of the lamps B, (see Fig. 2,) said branch pipes being bent or curved downward at their outer ends into the tops of the chimneys directly over the flames of the lamps. The pipe *x* is provided with a valve, *z*, near the cylinder C, to which is attached a lever or arm, *v*, by means of which it may be opened to allow the passage of air through said pipe. A ball, *y*, is attached to the outer end of the arm *v*, by a chain, *d*, said ball resting in a shallow cup-shaped bracket, K, secured to the bottom D of the car. I preferably inclose the valve *z*, ball *y*, and bracket K in a wooden box (not shown) secured to the bottom D of the car, to prevent them from being tampered with or accidentally disarranged. A supplemental or auxiliary pipe, *g*, is attached to the pipe *x* at *i*, between the valve *z* and cylinder C, by an ordinary T or other suitable means, and follows the course of the pipe *x* into the toilet-room E, where it again enters the pipe *x* at *l*.

The purpose of the pipe *g* is to enable the brakeman or other person in charge to extinguish the lights in the car at any time without using the valve *z*, and for that purpose said pipe is provided with a valve, *p*, in the toilet-room E.

In the use of my improvement, in case of an accident to the car, the ball *y* will be thrown from the bracket K, thereby pulling down the lever *v*, opening the valve *z*, and permitting the compressed air in the cylinder C to escape into the pipe *x*, from which it will pass through the branch pipes P and extinguish the flames of the lamps. It will be obvious to all familiar with the subject that the air, being stored at a very high pressure in the cylinder C, will, as soon as the valve *z* is opened, rush with

great force through the pipe x , thereby rendering it necessary to have said pipe of very small diameter. The pipe x is provided with a valve, k , within the car, by which it may be
5 closed, when desired, to prevent the air from passing from the cylinder through said pipe to the lamps.

I do not confine myself to extending the branch pipes downward into the chimneys of
10 the lamps, as they may terminate over the chimneys or at any other point near the flame of the lamp, provided they are so disposed that the air when discharged therefrom will extinguish the lamps; neither do I confine myself
15 to attaching the valve z to the pipe x , near the cylinder C, as it may be introduced in said pipe within the toilet-room E, and have its ball, chain, and bracket inclosed in a box, as described. This method of disposing the valve

z will enable the person in charge to extinguish the lights by opening said valve by hand, and thus dispense with the supplemental pipe g for that purpose, if desired. 20

Having thus explained my invention, what I claim is— 25

In a car-lamp-extinguishing device, the combination, with a compressed-air cylinder, a lamp, and a main pipe leading from said cylinder to said lamp, of a valve in said main pipe, means for automatically opening said
30 valve when the car is overturned, and an auxiliary pipe connected to said main pipe on either side of said valve and provided with a hand-valve, as and for the purpose set forth.

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Witnesses:

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