(No Model.)

H. M. YOUNG.

APPARATUS FOR EXTINGUISHING THE LIGHTS OF CAR LAMPS.

No. 377,445. Patented Feb. 7, 1888.

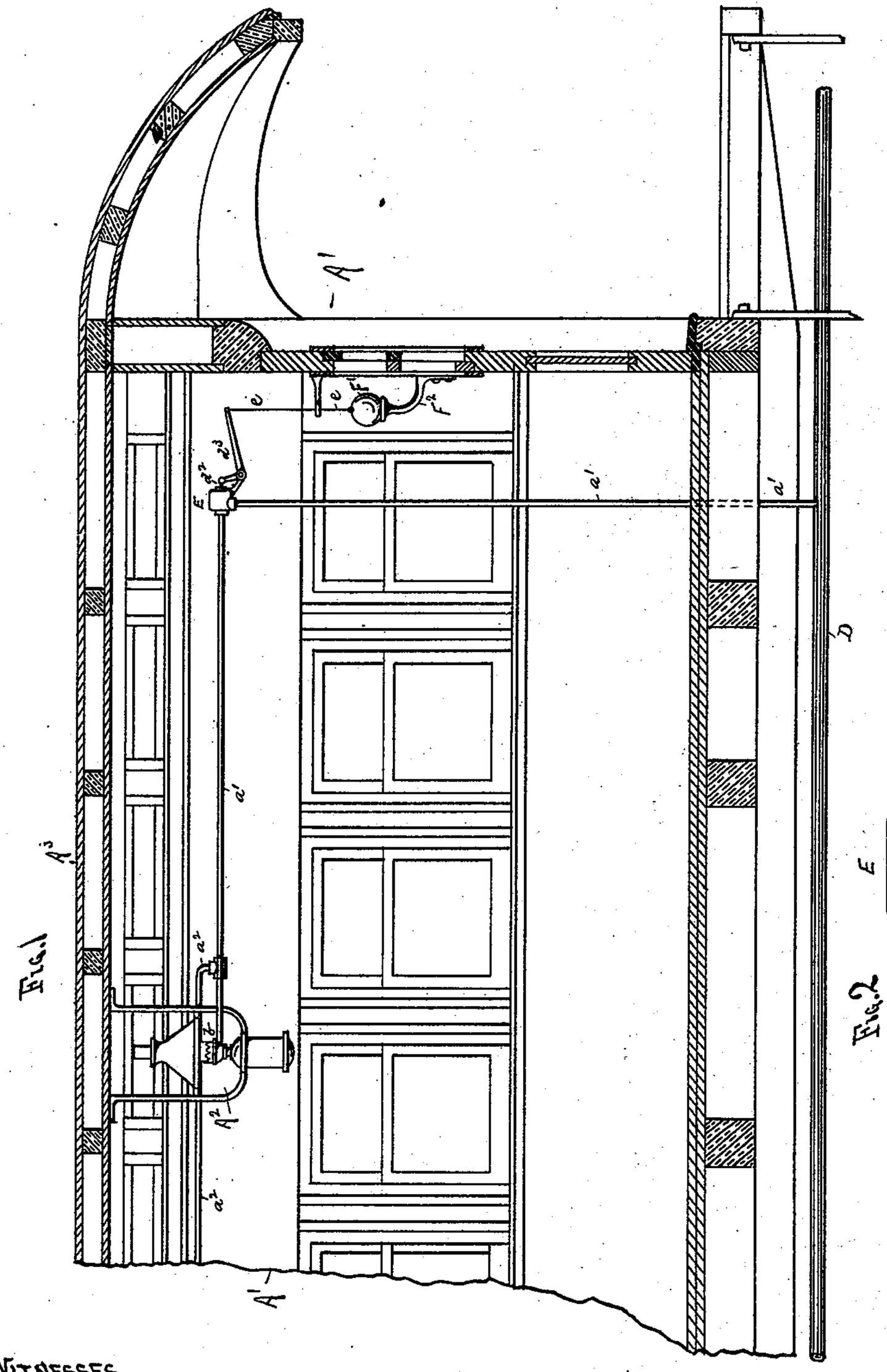

Fig. 1.

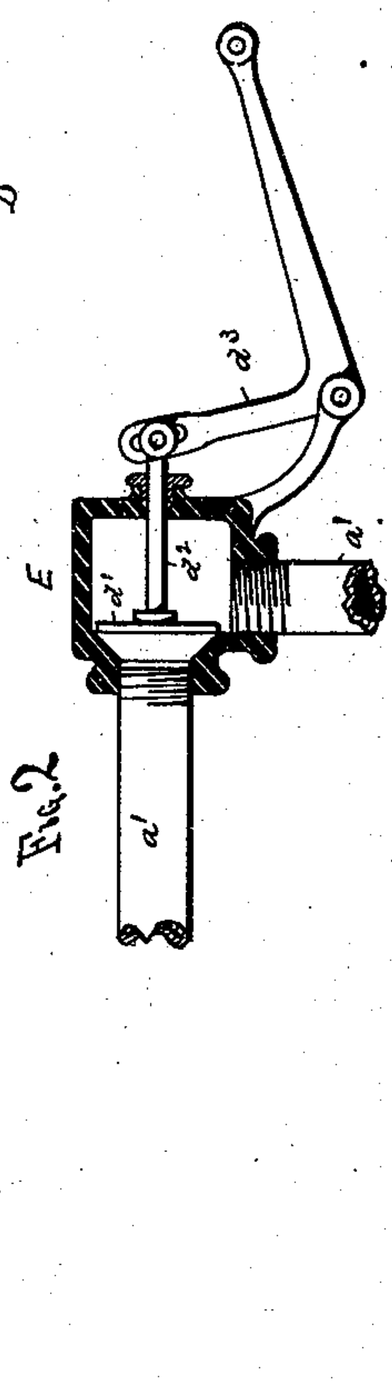

Fig. 2.

WITNESSES.

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HENRY MASON YOUNG, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE YOUNG SAFETY HEATING AND LIGHTING COMPANY.

APPARATUS FOR EXTINGUISHING THE LIGHTS OF CAR-LAMPS.

SPECIFICATION forming part of Letters Patent No. 377,445, dated February 7, 1888.

Application filed April 25, 1887. Serial No. 236,083. (No model.)

To all whom it may concern:

Be it known that I, HENRY MASON YOUNG, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Apparatus for Extinguishing the Lights of Car-Lamps, of which the following is a specification.

This invention has relation to that class of apparatus for extinguishing the lights in railway-cars in which compressed air or other vapor having a greater density than the atmospheric air is admitted into conductors opening into the lamps of cars on any accident happening to the latter, and it contemplates certain improvements on the extinguishing apparatus shown, described, and claimed in connection with other parts in the Letters Patent No. 358,824, granted to me on the 1st day of March, 1887; and it consists in the improved construction and combination of parts in which the ball, when dislodged from its bracket, as in the above-mentioned patent, will operate a valve in a pipe containing compressed air or dense vapor, and the escaping air or vapor, being conducted to each lamp in the car by means of suitable conductors, will extinguish the light in the lamps, as hereinafter more fully described and claimed.

For the purpose of illustration I have shown in the drawings, in Figure 1, the sectional outlines of a portion of a car with an approved form of my apparatus arranged therein. Fig. 2 is an enlarged sectional detail of one form of the valve for admitting the current of vapor from the piping to the conductors leading to the lamps.

A′ represents the frame-work of the car, and A^2 one of the lamps suspended from the ceiling A^3. I have shown only one of the lamps, as being sufficient to illustrate the invention; but of course it will be understood that all of the lamps in the cars will be connected into the system of vapor-conductors, as hereinafter described.

D represents one of the pipes running along beneath or through the car through which the compressed air for the air-brakes, the steam, hot air, or other heating medium passes in the ordinary manner, and a' represents a small pipe connected into this main D and running upward through the bottom of the car, and thence along beneath the ceiling A^3 to each of the lamps A^2.

As before stated, only one of the lamps is shown, the pipe a' leading into it at the burner *b*.

The pipe a' is shown provided with a branch, a^2, which represents one of the pipes leading to the next lamp, (the latter not being shown.)

At some convenient point between the main pipe D and the first lamp A^2 the pipe a' is provided with a valve adapted to be opened to admit a portion of the air or vapor to the piping a' a^2 when the car is displaced or subjected to a concussion sufficient to displace it or displace or destroy the lamps, and thus extinguish them and prevent danger of the lamps setting fire to the cars in event of accidents.

I do not wish to be limited to any particular form of the valve for admitting the vapor to the lamps, as I am aware that many different forms may be employed; but for the purpose of illustration I have shown a simple casing, E, into which the piping a' is connected, and which will contain a valve, d', adapted to be held closed by the pressure of the vapor from the pipe D, or by any other means, so that it will remain inoperative so long as the car is not displaced or subjected to a concussion sufficient to displace it or displace or destroy the lamps, but which will be provided with means for being automatically opened to admit the vapor to the piping a' a^2 when such displacement or destruction occurs.

I have shown in the drawings the valve d', provided with a stem, d^2, passing out through the casing E and connected to a crank-arm, d^3. By pulling down upon this crank-arm d^3 the valve will be opened and the vapor admitted to the conductors a' a^2, as will be understood by reference to the enlarged view in Fig. 2. I have shown the crank-arm d^3 connected by a cord or chain, *e*, to a ball, F′, poised upon a bracket, F^2, attached to the frame of the car A′, the function of the ball being to pull the arm d^3 downward when the car is subjected to a concussion or other force sufficient to dis-

place the ball, and thus open the valve d' and admit the vapor to extinguish the lamps.

The ball F′ is so poised upon the bracket F^2 that a concussion or other force sufficient to displace or crush the car or the lamps will also displace the ball and cause it to fall or be thrown off from the bracket, and thus open the valve by pulling upon the cord or chain *e* and arm d^3.

I am aware that it is not broadly new to admit compressed air or steam through tubes to lamps for the purpose of extinguishing them when accidents happen to railway-cars, and I am also aware that it is not new to employ compressed air used for operating air-brakes for the same purpose, and I do not broadly claim such devices; but

I claim as new and of my invention—

In an apparatus for extinguishing the lights of lamps in railway-cars, the combination of the compressed-air pipe D, having the smaller supply-pipe, a', passing to the lamp, and the connecting-pipe a^2, the casing E upon the supply-pipe, the valve d', and valve-stem d^2, the bell-crank d^3, pivoted to the valve-casing and having one arm pivotally connected to the valve-stem, the cord or chain *e*, attached to the other arm of the bell-crank, the bracket F^2, and the weighted ball F′, secured to the cord or chain and resting loosely upon the bracket, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

HENRY MASON YOUNG.

Witnesses:

C. N. WOODWARD,

H. S. WEBSTER.