J. F. MILLER.

SAFETY DEVICE FOR RAILWAY CARS.

APPLICATION FILED MAY 27, 1909.

950,726. Patented Mar. 1, 1910.

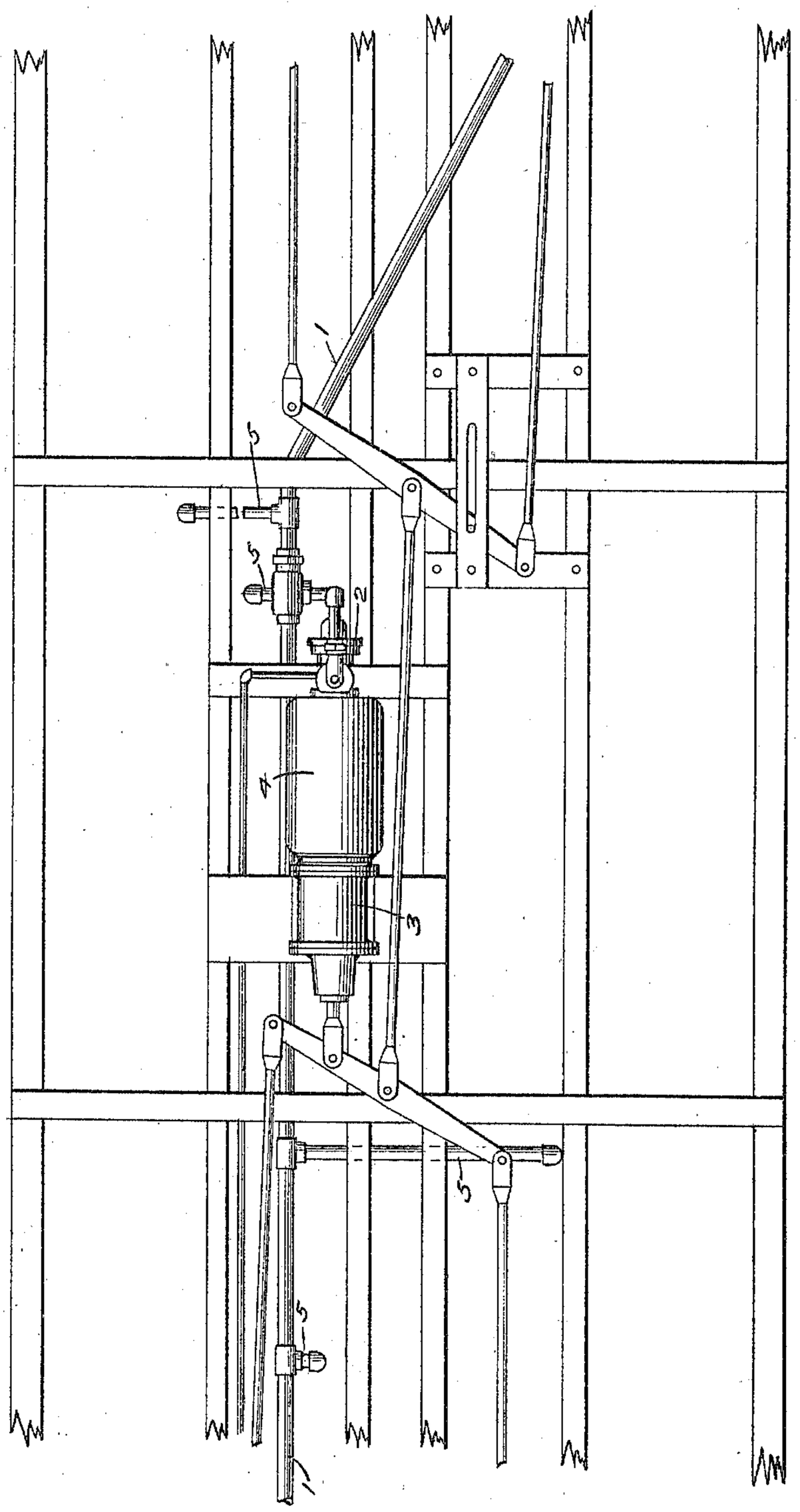

Fig. 1.

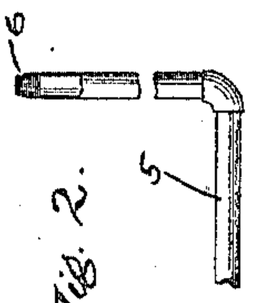

Fig. 2.

WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN F. MILLER, OF EDGEWOOD, PENNSYLVANIA, ASSIGNOR TO THE WESTINGHOUSE AIR BRAKE COMPANY, OF PITTSBURG, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

SAFETY DEVICE FOR RAILWAY-CARS.

950,726. Specification of Letters Patent. Patented Mar. 1, 1910.

Application filed May 27, 1909. Serial No. 498,602.

To all whom it may concern:

Be it known that I, JOHN F. MILLER, a citizen of the United States, residing at Edgewood, in the county of Allegheny and State of Pennsylvania, have invented new and useful Improvements in Safety Devices for Railway-Cars, of which the following is a specification.

This invention has reference more particularly to a safety device adapted to be employed upon a railway car as a protection in case of fire.

It has sometimes happened that a fire, accidentally starting upon a car of a train, has not been discovered until, fanned by the wind associated with a moving train, the fire gains considerable headway, in fact, such that the exits to adjacent cars or other means of escape are cut off and as a consequence the lives of the passengers are seriously endangered; especially is this true at night when passengers and even attendants are apt to be asleep.

The principal object of my invention therefore contemplates the provision of means on the car adapted to be effected by the high temperature of a fire so as to cause an application of the brakes. By this means, the train may be automatically brought to a stop in case of fire, so as to permit passengers to leave the car, if necessary, while steps may be taken to extinguish the fire, or otherwise insure the safety of the passengers.

In the accompanying drawing; Figure 1 is an inverted plan view of the under framing of a car carrying an air brake equipment and showing my improvement applied thereto; and Fig. 2 a detail view of a pipe connection to the train pipe provided with a fusible plug, in accordance with my invention.

My improvement is shown in the drawing as applied to an automatic air brake equipment comprising the usual train pipe 1, triple valve 2, brake cylinder 3, and auxiliary reservoir 4, which equipment, as well known, operates upon a reduction in train pipe pressure to cause an application of the brakes.

According to my invention, pipe connections 5 to the train pipe 1 are provided at various points, and these pipes are arranged so that their ends are near points at which there is the greatest liability for a fire to originate, for instance, one pipe might extend to the illuminating gas storage reservoirs, if the car carries such reservoirs, while other pipes may be brought to or above the car floor or may be extended to the car roof if desired. The ends of these pipe connections 5 are normally sealed by means of fusible plugs or tampions 6 in the preferred form of my invention. It will now be evident that the high temperature of a fire starting on the car will fuse or melt out one or more of the fusible plugs 6, thereby opening the train pipe to the atmosphere and causing a reduction in train pipe pressure which effects an application of the brakes; and where the train is equipped with quick action automatic brakes, an emergency application of the brakes will be propagated throughout the train in the usual well known manner.

Various other thermostatic devices may evidently be employed, within the scope of my invention, the action of which when subjected to the high temperature of a fire is adapted to result in applying the brake, but I prefer the fusible plug or tampion as a simple and inexpensive device for the purpose, and one which may be readily applied to existing brake systems without difficulty.

Having now described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A safety device for railway cars comprising means adapted to be effected by the high temperature of a fire to cause the brakes to be applied.

2. The combination with a thermostatic device located on a railway car in position to be controlled by the high temperature of a fire, of a brake apparatus operated by said thermostatic device to apply the brakes in case of fire.

3. The combination with fluid pressure brake apparatus operated upon a reduction in train pipe pressure to apply the brakes, of a thermostatic device operated by the high temperature of a fire occurring in the car for venting air from the train pipe to cause an application of the brakes.

4. In a fluid pressure brake, the combination with a train pipe, of a fusible plug controlling communication from the train pipe to the atmosphere, and located in a position

to be effected by a fire occurring on the car.

5. The combination with a fluid pressure brake system operating to apply the brakes upon a reduction in train pipe pressure, of a branch pipe connected to the train pipe and leading to the car and a fusible plug normally closing said branch pipe.

In testimony whereof I have hereunto set my hand.

JOHN F. MILLER.

Witnesses:
J. H. EICHER,
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