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JAMES T. WORLEY.

Improvement in Railway Passenger Cars.

No. 122,208.

Patented Dec. 26, 1871.

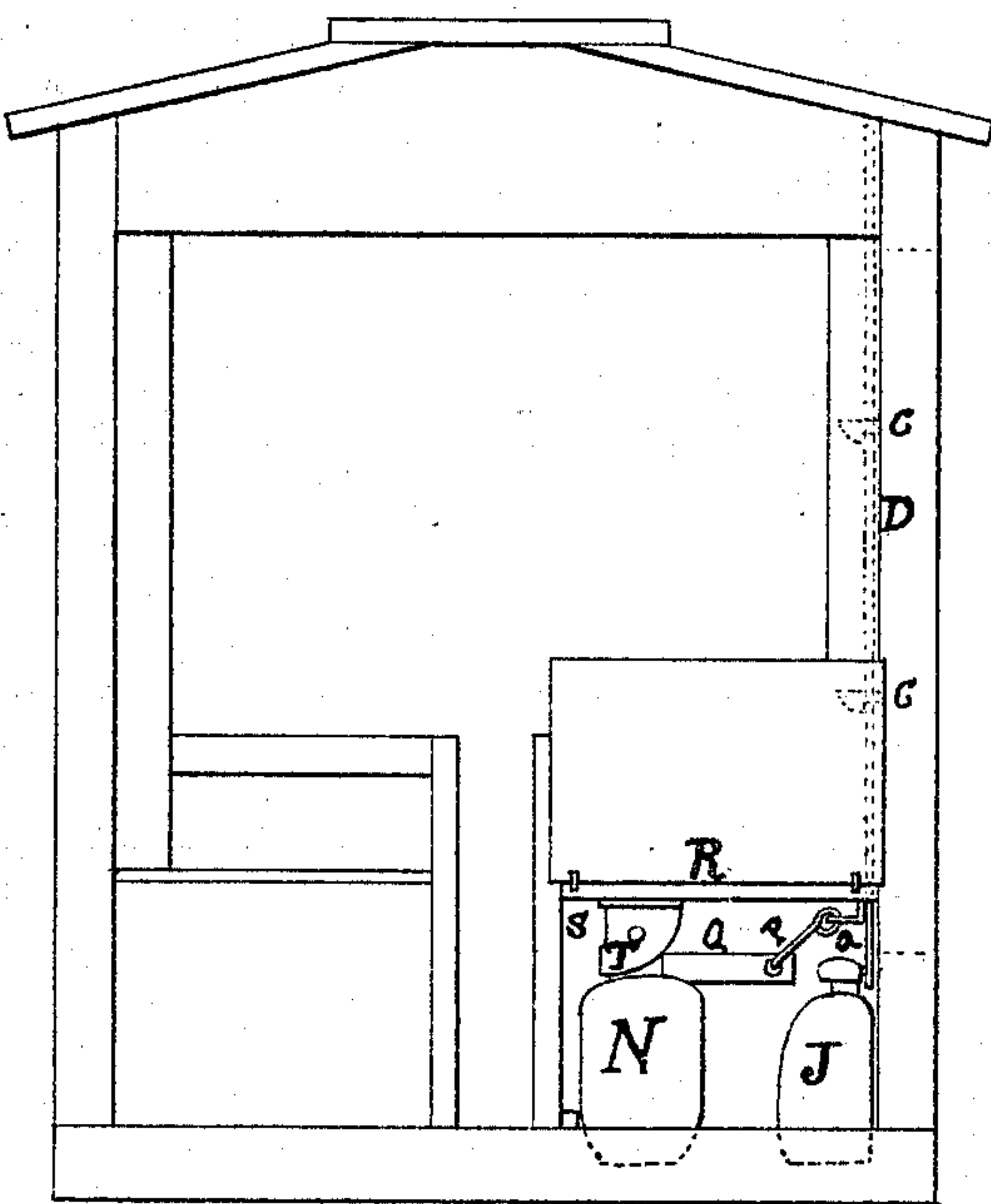


Fig 1.

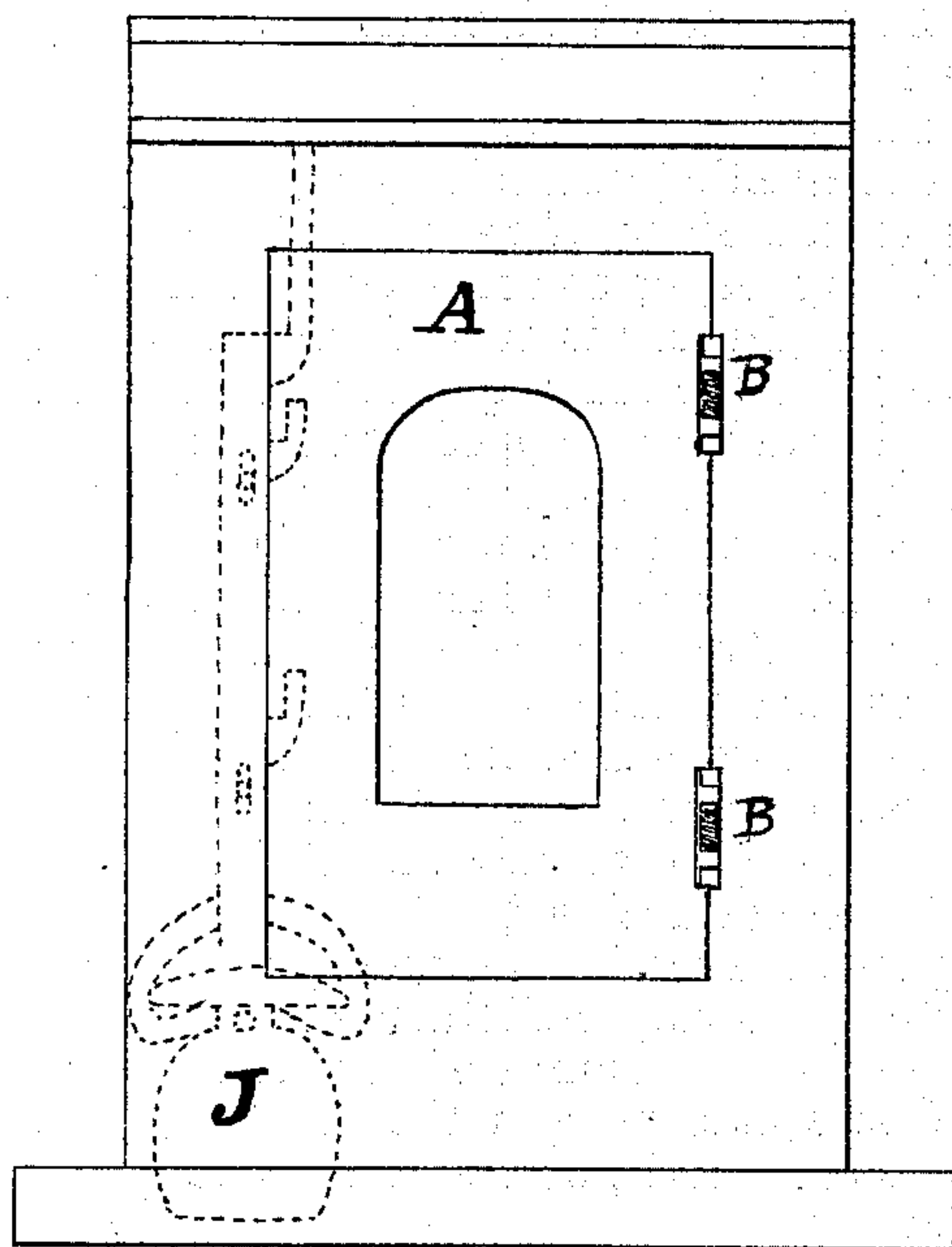


Fig 2.

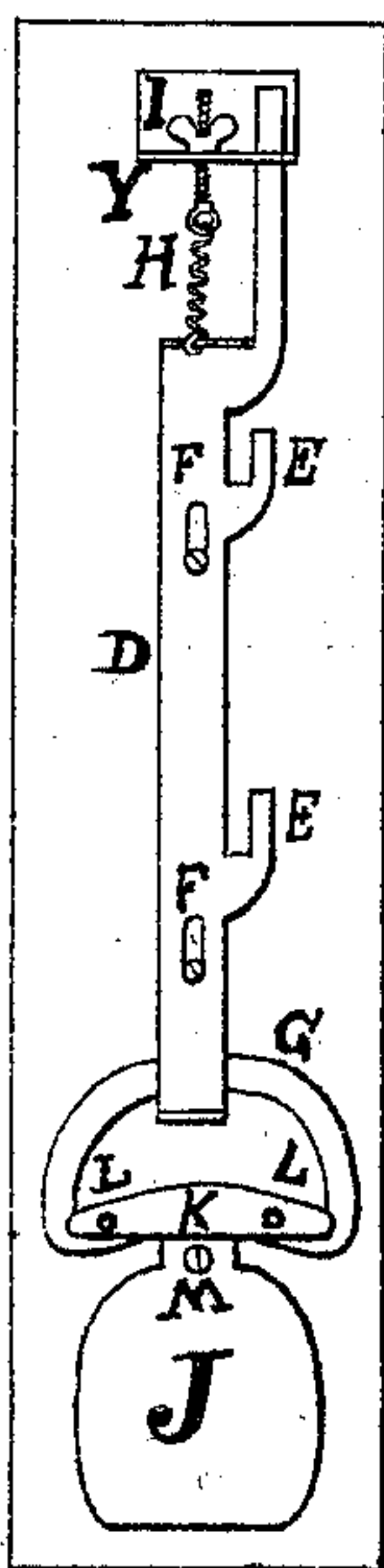


Fig 3.

WITNESS.

Samuel Williamson
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UNITED STATES PATENT OFFICE.

JAMES T. WORLEY, OF CLEVELAND, OHIO.

IMPROVEMENT IN RAILWAY PASSENGER-CARS.

Specification forming part of Letters Patent No. 122,208, dated December 26, 1871.

Specification describing an Improvement in Railroad Passenger-Cars, invented by JAMES T. WORLEY, of Cleveland, county of Cuyahoga and State of Ohio.

The nature of my invention consists in applying self-fastening and self-opening doors or windows to the sides of railroad cars, said doors or windows being so constructed and arranged that when the car is turned sidewise or tipped endwise to a certain angle, or when from a quick motion is suddenly stopped, the side doors or windows will, by means of a swinging weight, fly open, thereby providing openings through the sides of the car, and through which openings passengers may escape from the car in case of accident.

I construct a railroad passenger-car provided with end doors, seats, berths, or lounges, similar to those now in use. In addition, however, I provide side doors or windows for the exit of passengers in time of accident.

Figure 1 is a sectional view representing an end of the car, showing the attachment of the weights and bolts or fastenings of the door or window. Fig. 2 is a side view of the same. Fig. 3 is a view of the weight-bolt and its attachments to the car.

A, Fig. 2, represents the door or window, which is secured to the car on one side by means of spring hinges B B, and on the other side by catches C C, Fig. 1. D, Fig. 3, represents a sliding bolt, with slots E E F F, loop G, spring H, with swivel-screw and nut I. The bolt D is secured to the side of car by means of screws passing through slots F F and bracket Y, which slots F F are sufficiently long to allow the bolt to work up and down to admit or detach the catches C C, Fig. 1. To the lower end of bolt D is secured a

swinging weight, J, provided with cross-bar K, on which cross-bar are prongs L L. The weight J is secured to the car by means of screw M. Spring H, with screw and nut I, is used to regulate the motion of bolt D. The swinging weight J operates on bolt D when the car is tipped endwise, or, when in motion, is suddenly stopped, by freeing the catches C C from bar D, when springs B B throw the door or window open. The swinging weight N, Fig. 1, is made with an arm, O, and is secured to bolt D by means of link P and bracket Q. This weight N is secured to the under side of the seat R by means of bracket S and swings on pivot T. This swinging weight N is to operate on the bolt D when the car is tipped sidewise, causing the door or window A to open, but only to open the door or window on the upper side of the car.

The swinging weights N and J are represented under seat R, but may be applied to any part of the car where experience may dictate as most suitable position to attach them. The number of doors or windows to be put on each side of the car is a matter which experience will dictate. Three, however, on each side of the car would seem to be sufficient.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

Opening the side doors or windows of a railroad car by means of a swinging weight, substantially as described, for the purposes above set forth.

JAMES T. WORLEY.

Witnesses:

JAMES WADE, Jr.,
SAMUEL WILLIAMSON.