

(No Model)

J. L. CONDON.
SAFETY GATE FOR STREET CARS.

No. 583,327.

Patented May 25, 1897.

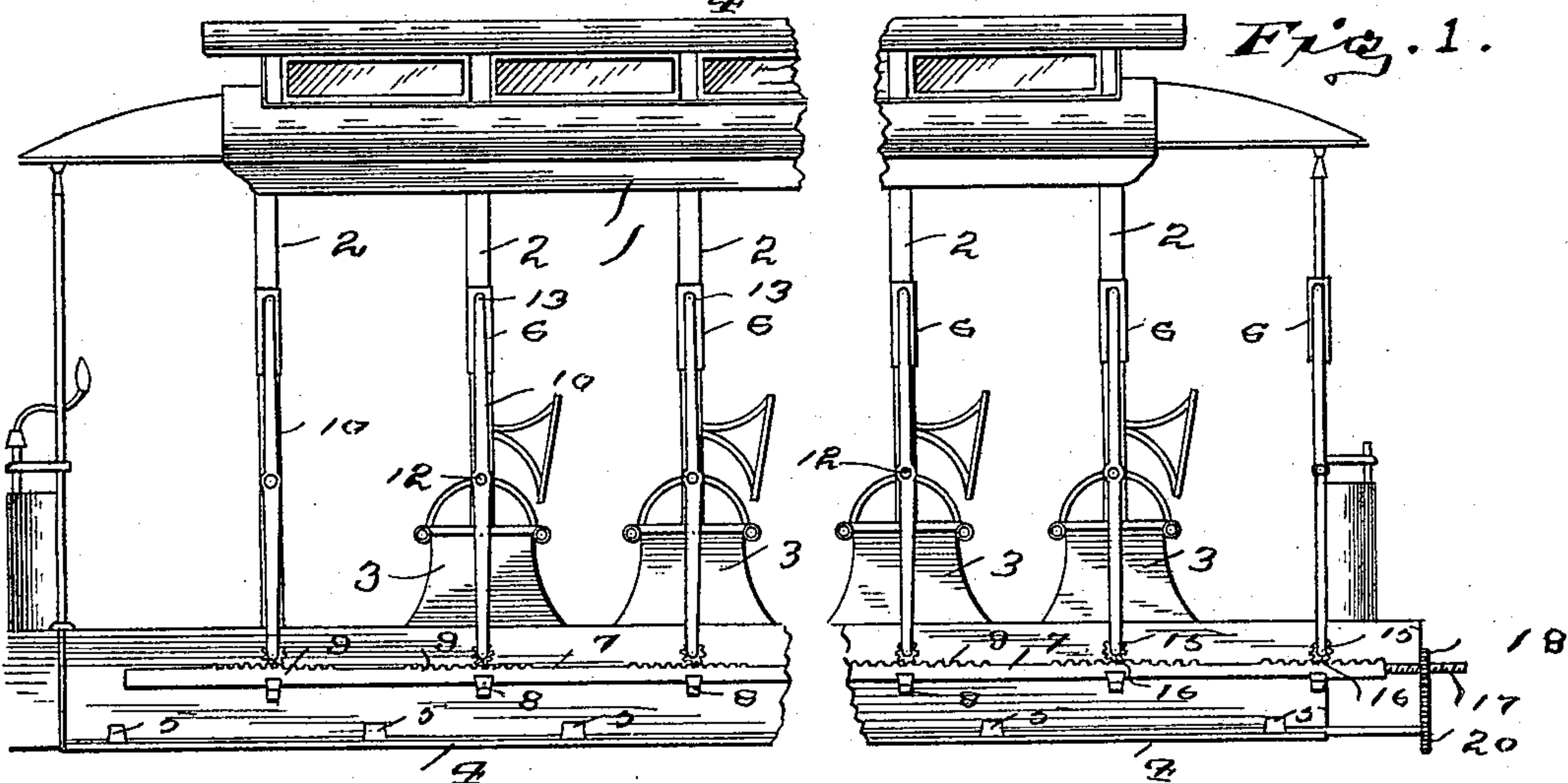
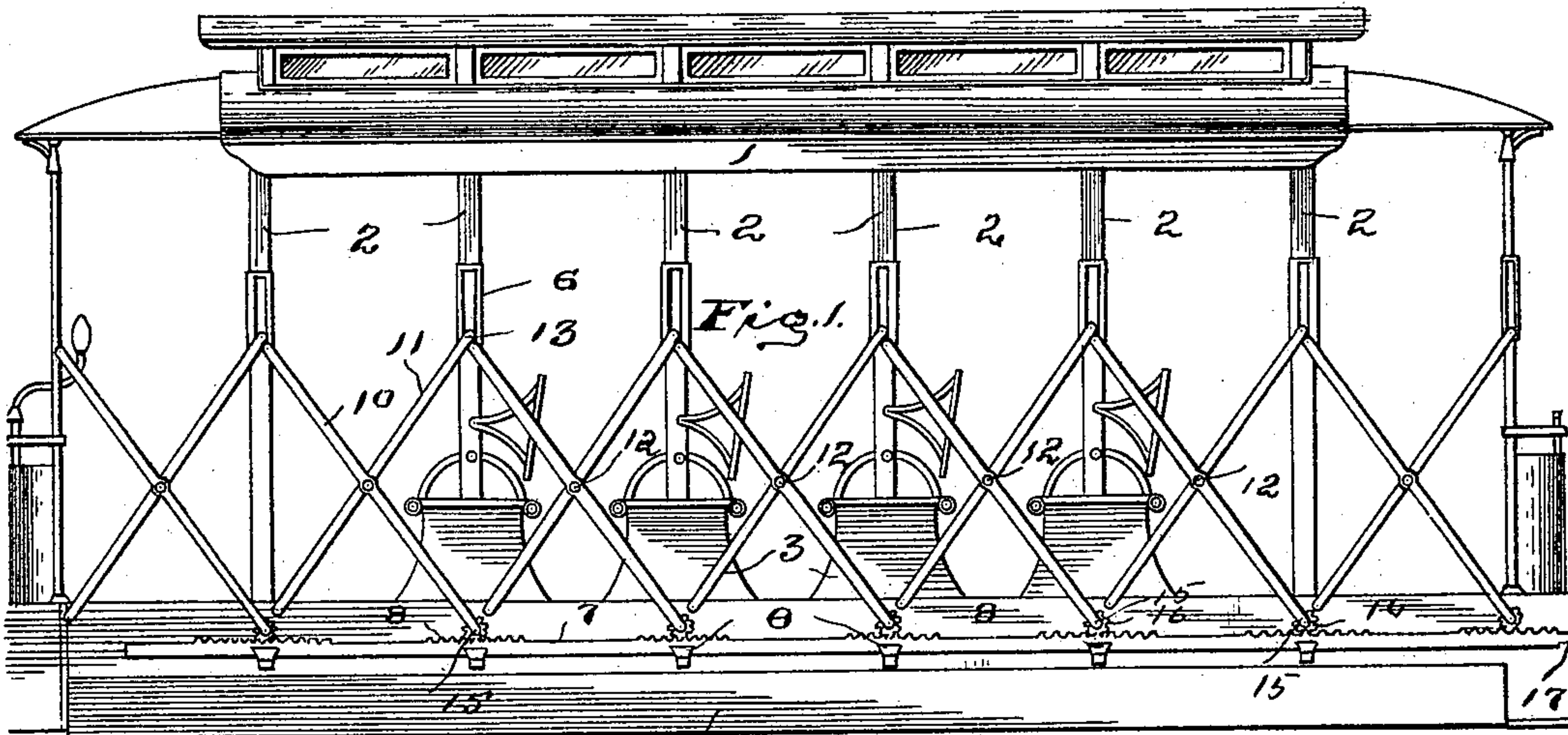


Fig. 2.

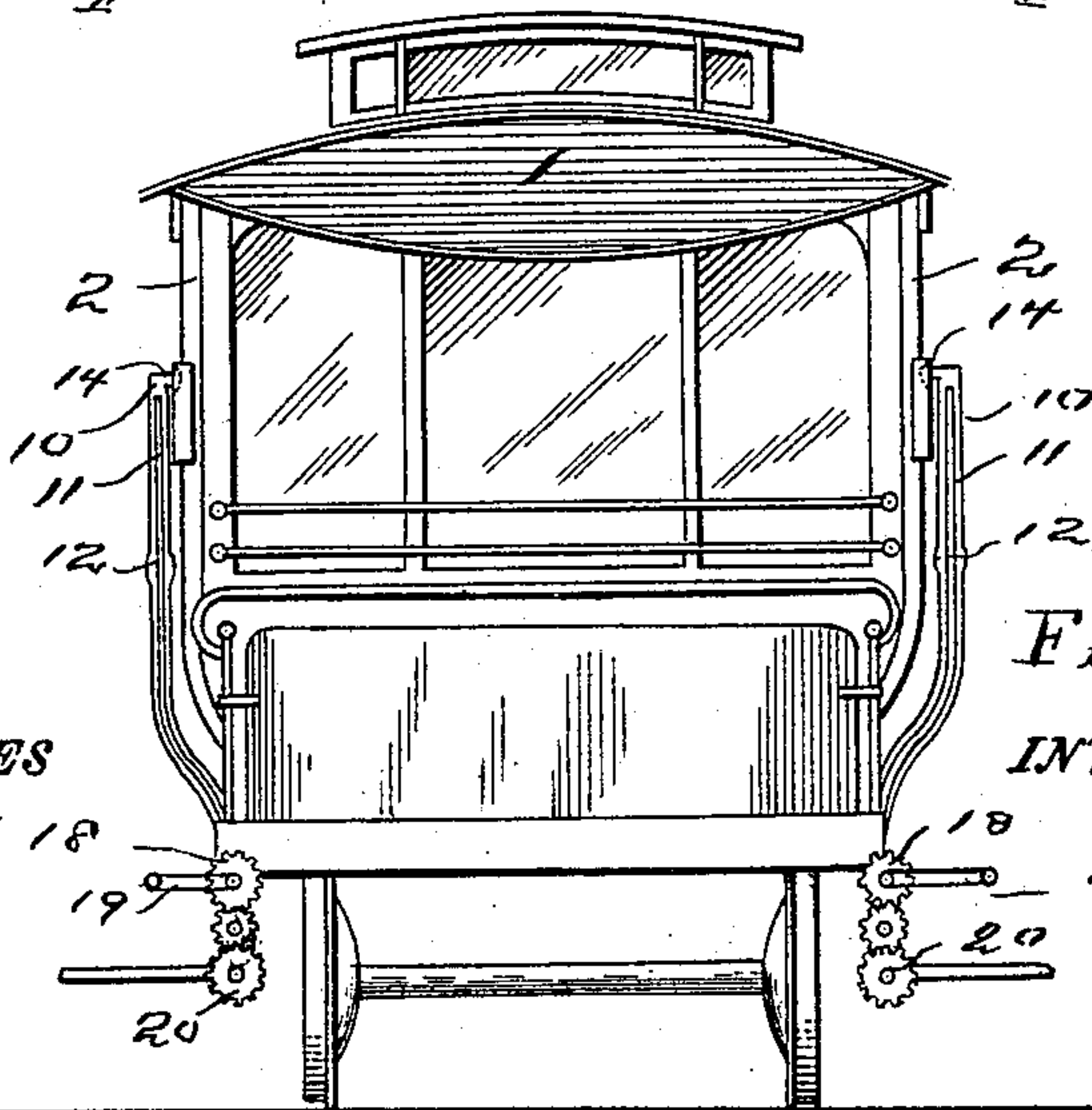


Fig. 3.

WITNESSES

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SAFETY-GATE FOR STREET-CARS.

SPECIFICATION forming part of Letters Patent No. 583,327, dated May 25, 1897.

Application filed August 24, 1896. Serial No. 603,716. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. CONDON, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Safety-Gates for Street-Cars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to safety-gates for open street-cars.

My object is to provide improved means whereby all the exit-passages from the sides of an ordinary open street-car can be simultaneously closed or opened, and, further, to provide novel mechanism whereby the running-boards on each side of the car can be raised or lowered simultaneously with the closing and opening of the gates, thereby preventing any person or persons from leaving or falling out of the car while the same is in motion.

Having these objects in view, my invention consists of certain improvements appearing more fully hereinafter.

In the accompanying drawings, Figure 1 is a side elevation of an ordinary open street-car equipped with my improvements, the running-board being shown raised and the gate closed; Fig. 2, a like view, but showing the gates open and the running-board lowered; and Fig. 3, an end view.

An ordinary street-car is designated by the numeral 1, being provided with the usual seat-posts 2, rising from the seats 3.

The numeral 4 designates the running-board, but instead of this being fixed, as usual, it is connected to the car-body by sets of strong hinges 5, so that it can be raised or lowered whenever desirable. Connected to each seat-post is a slotted guide-iron 6.

The numeral 7 designates a rack-bar which extends from end to end of the car, said bar sliding in a row of brackets 8 and being provided with sets of teeth 9.

There are a series of gates which are entirely disconnected from each other. Each gate is composed of two rods 10 and 11, one of which is passed through a slot in the other and pivoted on a pin, as shown at 12. One

end of each rod is free, but the upper end of rod 11 is bent inwardly, as at 13, and provided with an enlarged head 14, which slides in the broad portion of the T-shaped slot in the guide-iron connected to the seat-post. The lower end of rod 10 is provided with a short spindle 15, which is journaled in the car-body and carries a fixed pinion 16, which meshes with one set of teeth 9 on the rack-bar. The operating mechanism is located at one end of the car. The rack-bar is flat, with the exception of its rear end, which is formed round or cylindrical, as at 17, and is provided with a left-hand screw thread.

The numeral 18 designates a cog-gear which is adapted to turn on the screw-threaded portion of the rack-bar. This cog-gear abuts against the end of the car, and hence it will be seen that when it is turned in either direction the rack-bar will be either advanced or retracted, so that the engagement of the same with the sets of pinions will cause each gate to be either spread across the opening at the end of the seat or closed up.

It will be seen that each bar of each gate is made in semicylindrical shape, so that when the bars are closed together they form a handle for the use of the passengers getting in or going out of the car.

The numeral 19 designates a crank-handle which is secured to gear 18, whereby the same may be easily manipulated.

At 20 is shown another gear which is securely connected to the extended pintle of the hinge at the end of the car that connects the running-board with the body of the latter.

The numeral 21 designates an idle-gear which connects gears 18 and 20.

The operation is as follows: When the crank-handle is turned in one direction, the rack-bar is moved and each gate closed, so as to form a handle, as shown in Fig. 2, and at the same time the running-board is lowered against the side of the car-body when the crank-handle is turned in the other direction. When the crank-handle is turned in the opposite direction, the gates are extended and the running-board raised. Of course duplicate mechanism is used on the opposite side of the car.

There are many slight changes of construction that might be resorted to in carrying out

my invention without retracting from any of its advantages—as, for instance, changing the means for shifting the rack-bar and raising the running-board—and hence I do not limit myself to the precise construction herein shown and described, but consider that I am entitled to all such variations as properly come within the spirit and scope of my invention.

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

1. In a safety-gate for open cars, the combination with independent sets of lazy-tongs 15 for each opening at the end of the seat, each set having free portions adapted for extension across said opening, of means for simultaneously projecting and retracting the free portions of the sets of lazy-tongs.

20 2. In a safety-gate for open cars, the combination with a series of slotted irons connected to the side or seat posts, of sets of lazy-tongs each comprising a pair of bars one of which has a portion slidable in the slotted 25 iron, and means for moving the other bars whereby the sets of lazy-tongs may be closed or opened.

3. In a safety-gate for open cars, the combination with sets of lazy-tongs each comprising 30 two bars, the end of one of said bars being adjustably connected to the seat or end post, and a pinion securely connected to the

end of the other bar, and said latter bar being journaled to the car, of a longitudinally-extending rack-bar meshing with the pinions, 35 and means for moving said rack-bar.

4. The combination with a car, of a running-board hinged thereto, and free to fold against the side of the car, independent sets 40 of lazy-tongs for closing the openings at the ends of the seats, which lazy-tongs have free portions adapted for extension and retraction and means for simultaneously operating the lazy-tongs and the running-board.

5. The combination with an open street- 45 car, of slotted guide-irons connected to the seat of end posts thereof, sets of lazy-tongs each comprising a pair of bars hinged together, one of said bars having a portion slidable in the slotted guide-irons, pinions jour- 50 naled to the bars of the sets, a longitudinally-slidable rack-bar meshing with the pinions and provided with a screw-threaded end, a wheel on said screw-threaded ends, but abutting on the car, and a crank-handle connected 55 to the wheel.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOHN L. CONDON.

Witnesses:

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ARTHUR R. TORREY.