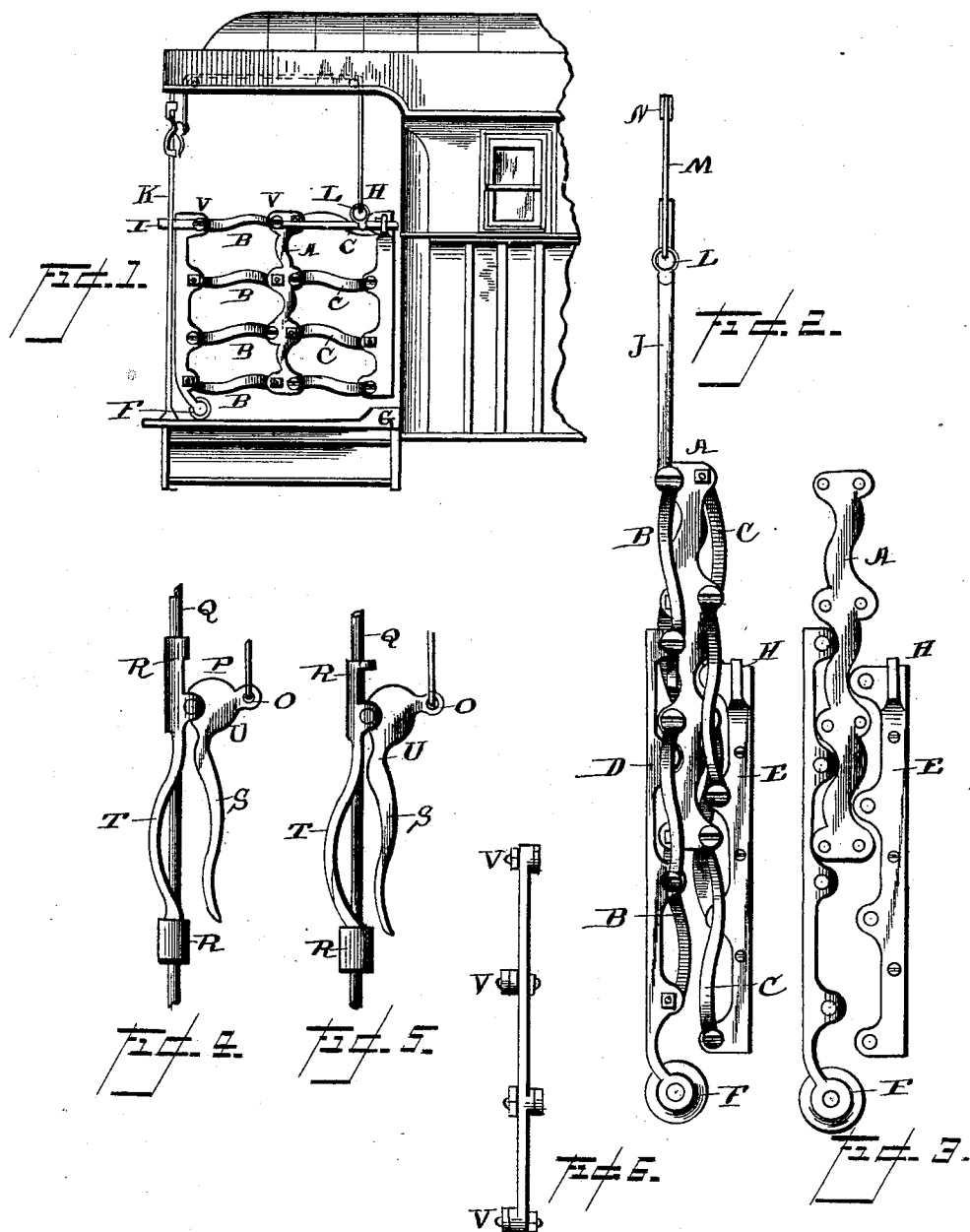


(No Model.)

L. ARNOLD.  
RAILWAY CAR GATE.

No. 481,540.

Patented Aug. 23, 1892.



WITNESSES:

*W. J. H. M. W.*  
*C. P. Davis.*

INVENTOR

*Lyndon Arnold*

BY

*J. R. Nottingham*  
ATTORNEY.

# UNITED STATES PATENT OFFICE.

LYNDON ARNOLD, OF ST. JOHNSBURY, VERMONT.

## RAILWAY-CAR GATE.

**SPECIFICATION** forming part of Letters Patent No. 481,540, dated August 23, 1892.

Application filed May 1, 1891. Serial No. 391,220. (No model.)

*To all whom it may concern:*

Be it known that I, LYNDON ARNOLD, a citizen of the United States, residing at St. Johnsbury, in the county of Caledonia and State of Vermont, have invented a new and useful Railway-Car Gate, of which the following is a specification.

My invention relates to improvements in railway-car gates in which a gate is operated on the car-platforms for the safety and convenience of passengers; and the objects of my improvements are, first, to provide a substantial gate to prevent persons from falling or stepping off the platform; second, to afford facilities for opening and closing the same quickly and easily; third, to secure the same open or closed, and, fourth, to provide a clear passage-way when the gate is open. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section of the entire mechanism. Fig. 2 is a vertical section of the gate raised or open. Fig. 3 shows framework with parallel bars detached. Fig. 4 is a section of device for holding gate open with grip loose. Fig. 5 is a section of holding device with grip fast on rod. Fig. 6 is a vertical end section.

Similar letters refer to similar parts throughout the several views.

The center piece A, side pieces D and E, with parallel bars B and C, constitute the framework of the gate. The side piece E is securely fastened to the corner of car or other suitable support, side piece E is connected with the center piece A by means of parallel bars C, and center piece A is connected to side piece D by parallel bars B. All the connections of parallel bars B and C with side pieces D and E and center piece A are by means of bolts, forming hinge-joints. Side piece D has at its lower extremity a double-flanged roller running in grooved track flush with platform. At the end next the car and side piece E the track ends in a starting-block G for roller F. The top parallel bar B is continued past center piece A, forming lock-lever J, which is made to engage with catch H on the top of side piece E. At its other end it is made to engage with catch I, thus fastening the gate securely when closed. A cord M is attached to lock-lever J

by means of ring L and passes up and over rollers N down to ring O on eccentric P, Fig. 4, which is pivoted in sliding sleeve R and provided with a grip-lever S. The eccentric P is pivoted in sleeve R, so that when lever S is held close to rod Q the eccentric does not touch rod Q, but allows sliding sleeve R to move freely up and down on rod Q, as shown by dotted lines in Fig. 4. The cord M is attached to eccentric P in such manner that when the grip-lever S is released it causes eccentric P to turn toward the rod Q, gripping it and holding it locked in that position until released by grip-lever S being forced down.

In raising the gate the grip-lever S is held close to rod Q, turning eccentric P till it releases its grip on rod Q. The sliding sleeve R is then drawn down on rod Q, pulling cord M over rollers N and raising the end L of lever J, which lifts center piece A and all the ends of parallel bars B and C that are connected to A, drawing side piece D toward side piece E. At the same time that center piece A is raised side piece D, moving on roller F till the roller F strikes starting-block G, when the grip-lever S being released, the weight of gate on cord M raises the side O of eccentric P, locking it against rod Q and holding the gate in that position.

In closing the gate, lever S is held down, releasing eccentric P, when sleeve R slides upon rod Q, releasing the tension on cord M, allowing roller F to roll off starting-block G, when the weight of center piece A tends to bring parallel bars B and C into horizontal line and closing gate, and by pushing side piece D toward rod Q allows end K of lever J to engage with catch I, and end L of lever J engages catch H, locking the gate.

I am aware that prior to my invention car-gates have been made to close the passage-ways to car-platforms. I therefore do not claim such a combination, broadly; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

1. A railway-car gate comprising a stationary side piece and a horizontally-sliding side piece, each pivotally connected to a vertically-movable central piece, and means for raising and lowering the central piece to open and close the gate, substantially as specified.

2. In a car-gate, the combination of the ver-

tically-movable center piece A, connected by parallel bars B and C to side pieces D and E, substantially as described.

3. The parallel bars B and C, hinged by joints V to center piece A and at the other end to side pieces D and E, as shown.

4. The combination, in a car-gate, of the starting-block G, grooved track, and flanged carrying-roller F, substantially as described.

5. The lock-lever J, pivoted by joints V to center piece A and side piece D and engaging catch H at one end and catch I at the other, for the purpose specified.

6. The combination, in a car-gate, of the rollers N, cord M, loop L, eccentric-loop O,

and lock-lever J, substantially as shown, and for the purpose specified.

7. Sliding sleeve R, movable vertically on rod Q and connected by eccentric P, loop O, cord M, and loop L to lock-lever J, substantially as described.

8. In a car-gate, the combination of eccentric P with sliding sleeve R, handle T, grip-lever S, connected by cord M to lock-lever J, all substantially as described, and for the purpose specified.

LYNDON ARNOLD.

Witnesses:

C. M. BURKE,  
O. W. ORCUTT.