

J. A. O'HAIRE.  
Operating Car-Doors.

No. 142,810.

Patented September 16, 1873.

Fig. 1.

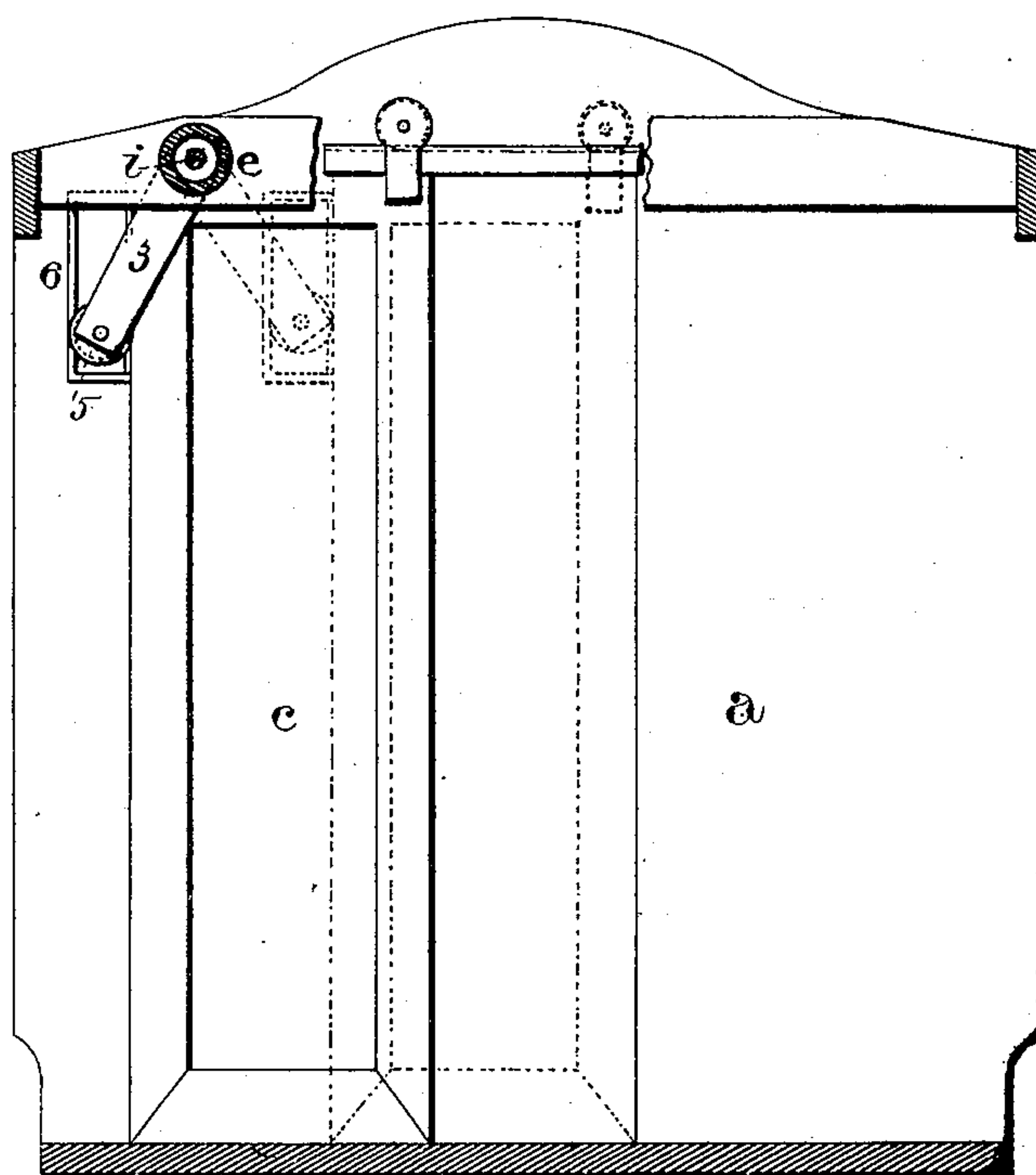
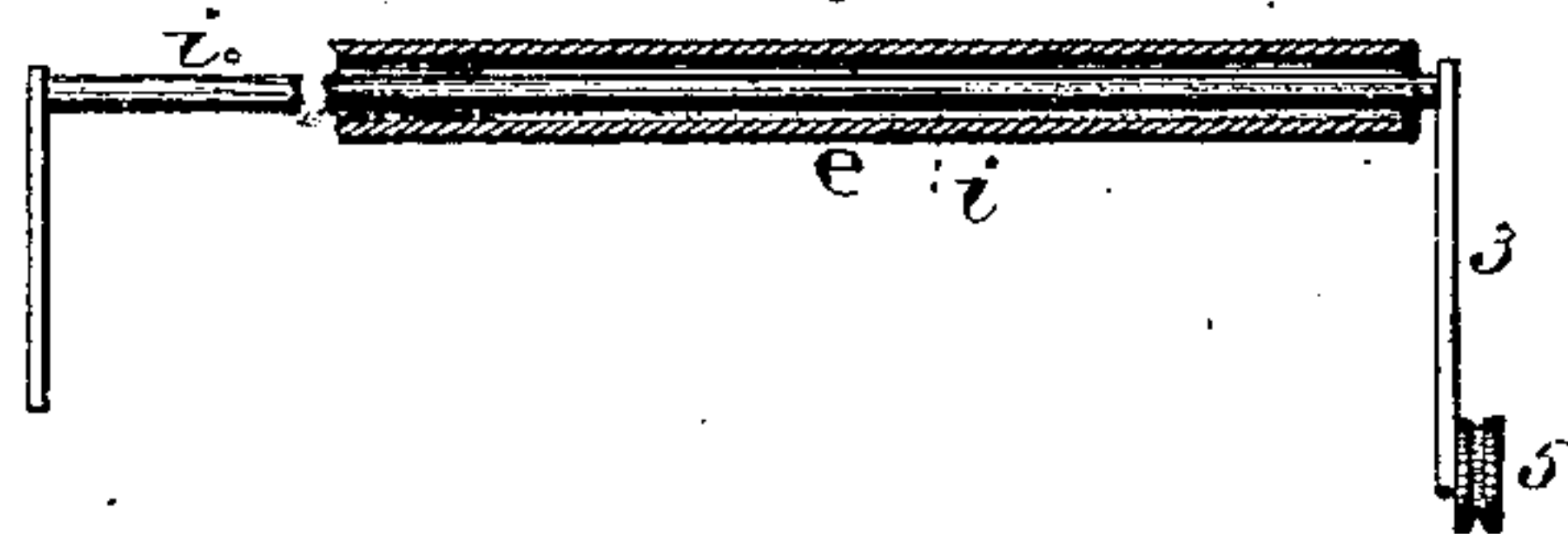


Fig. 2.



WITNESSES.

Wm. Johnson.  
W. F. Kendig.

INVENTOR.

Jno. A. O'Haire  
per  
F. A. Lehmann, Atty.  
Washington, D.C.

# UNITED STATES PATENT OFFICE.

JOHN A. O'HAIRE, OF WEST TROY, NEW YORK, ASSIGNOR OF ONE-HALF  
TO W. A. JONES, OF SAME PLACE.

## IMPROVEMENT IN OPERATING CAR-DOORS.

Specification forming part of Letters Patent No. **142,810**, dated September 16, 1873; application filed  
June 27, 1873.

*To all whom it may concern:*

Be it known that I, JNO. A. O'HAIRE, of West Troy, in the county of Albany and State of New York, have invented certain new and useful Improvements in 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

The nature of my invention relates to an improvement in devices for opening the doors of cars; and it consists in a rod passing from the front to the rear of the car through a hollow bar, from which the hand-straps are suspended, and which has a crank or lever secured to each end. The front lever is in easy reach of the driver, while the rear one carries a roller, which works up and down in a rectangular frame secured to the rear edge of the door, and through which the door is moved back and forth. The driver, by moving the lever, can open or close the door at will.

Figure 1 represents a cross-section of a car to which my invention is applied. Fig. 2 is a detail view of the same.

*a* represents the frame of an ordinary street-car, provided with the door *c*, which is supported upon and moves back and forth upon suitable pulleys and ways arranged in any desired manner. Passing through the hollow bar *e*, from which the hand-straps are suspended, is a rod or bar, *i*, which has a lever or crank upon its front end within easy reach of the driver. Upon its rear end is a similar

lever or crank, 3, carrying the roller 5, which works up and down in the rectangular guiding-frame 6, secured to the rear edge of the door, and through which the door is opened and closed. The driver by a slight push upon the front lever, secured to the front end of the rod *i*, can open the door *c*, or, by a pull toward him, can close it, as shown in dotted lines, without moving off his seat.

By this simple arrangement of devices I entirely dispense with the use of cords, which are always more or less liable to break, and all weights, pulleys, and other devices, which are not only costly, but more or less liable to get out of repair.

I am aware that it is not new to operate the door from the front platform of the car, as this has heretofore been accomplished by means of an endless cord, which passes through the rods to which the holding-straps are secured, and I therefore disclaim such invention.

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

The rod *i*, crank or lever 3, and guiding-frame 6, secured to the door, and combined with an operating-lever for the driver, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 24th day of June, 1873.

JOHN A. O'HAIRE. [L. S.]

Witnesses:

CHARLES H. FORT,  
JOHN HAMIL.