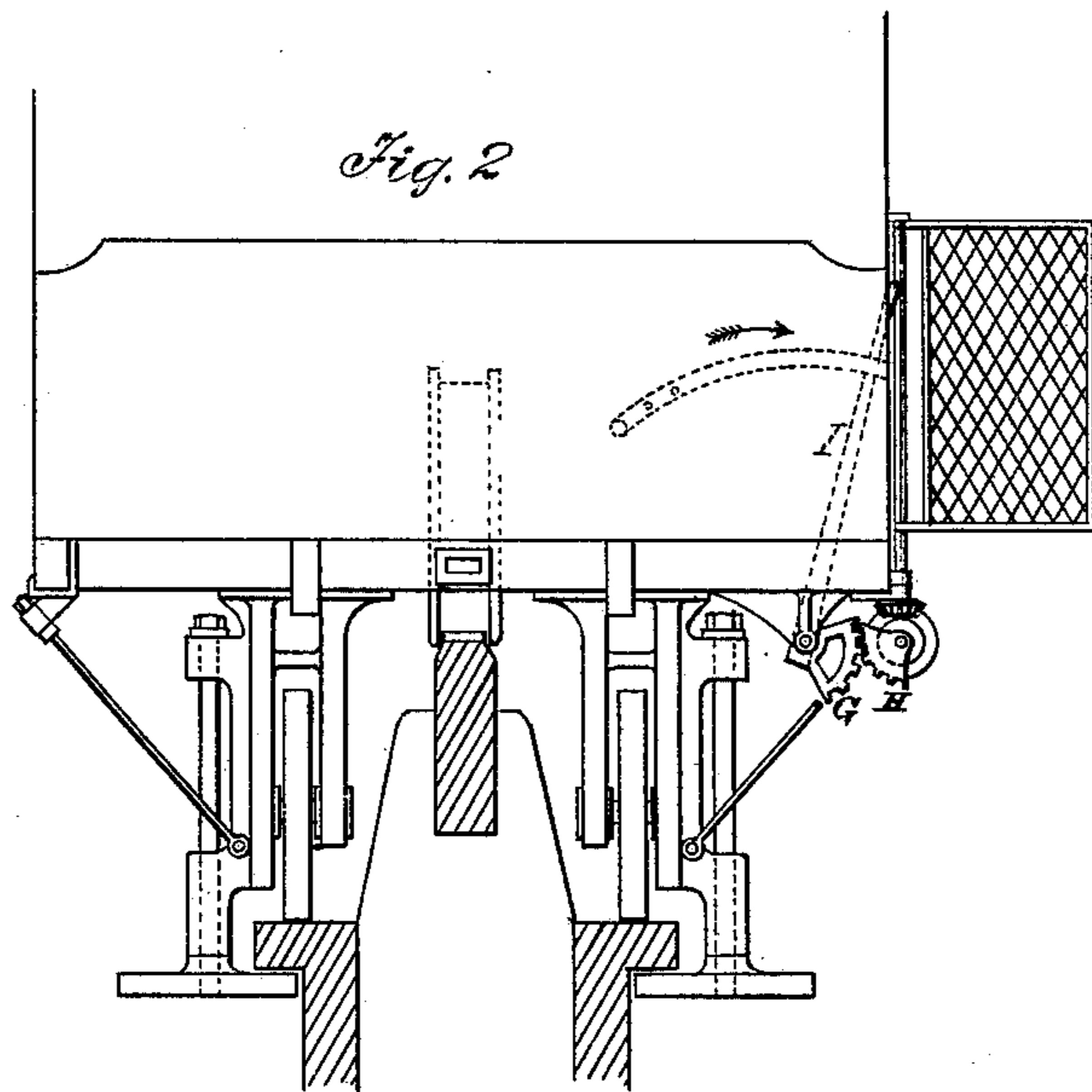
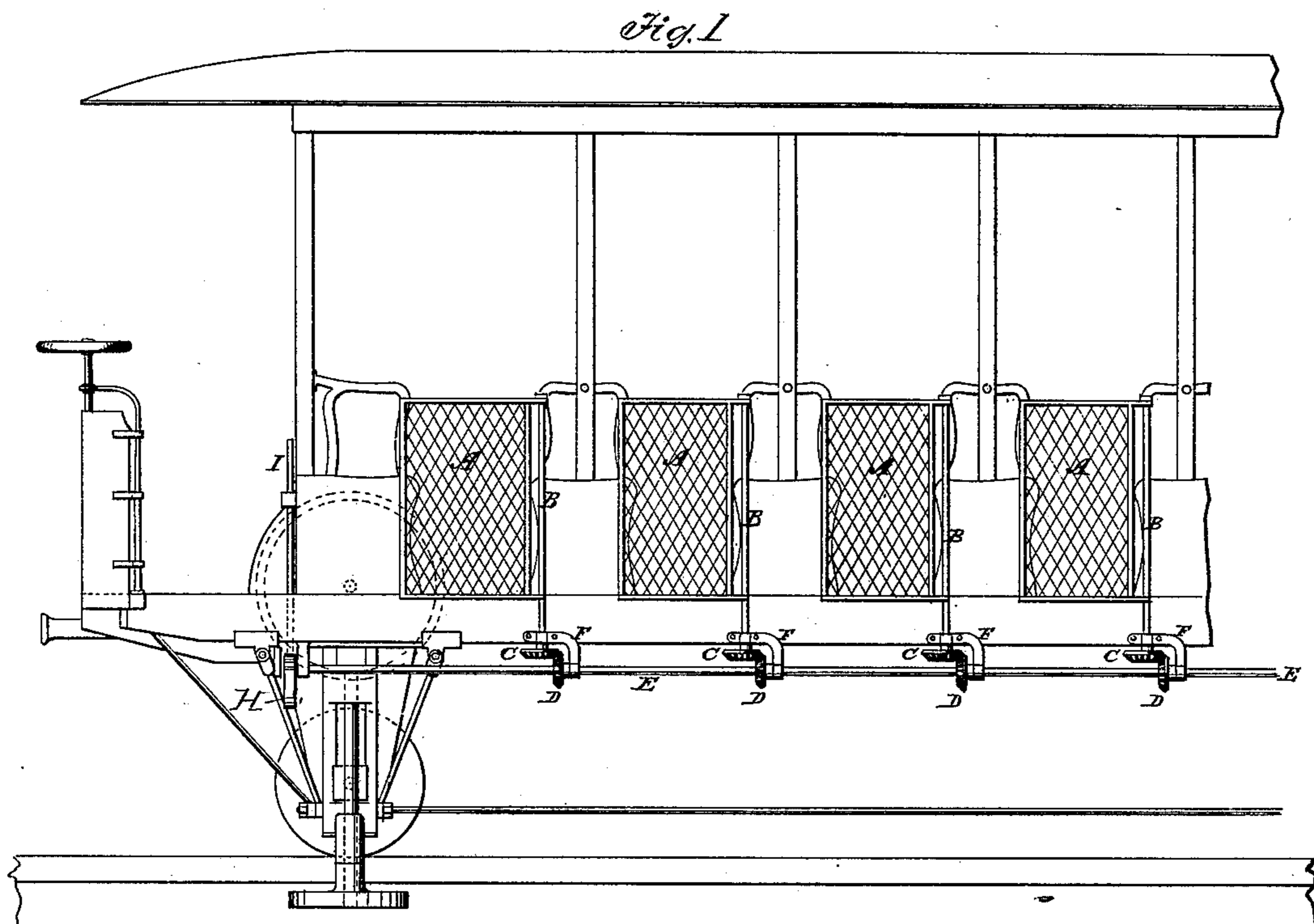


(No Model.)

W. W. RILEY.  
Operating Car Doors.

No. 229,755.

Patented July 6, 1880.



Witnesses:  
T. J. W. Robertson.  
R. Robertson.

Inventor  
William W. Riley  
per Charles F. Nash  
Attorney

# UNITED STATES PATENT OFFICE.

WILLIAM W. RILEY, OF BROOKLYN, N. Y., ASSIGNOR OF ONE-HALF OF HIS  
RIGHT TO FRANCIS A. BARTHOLOMEW, OF BLOOMFIELD, N. J.

## OPERATING CAR-DOORS.

SPECIFICATION forming part of Letters Patent No. 229,755, dated July 6, 1880.

Application filed April 20, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM WILLSHIRE RILEY, a citizen of the United States, residing in Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Operating Car-Doors, of which the following is a specification.

The object of this invention is to place all the doors on the side of the car, and have them so arranged by simple mechanism that they may all be controlled by a lever in the hand of the conductor or brakeman in charge.

Figure 1 represents a side view of a car, showing my invention. Fig. 2 is an end view of the same.

Similar letters of reference indicate corresponding parts.

In the case here presented the doors A, which are preferably made of a metal frame and a filling of strong wire-netting, are each rigidly attached to a vertical shaft, B, at each of whose lower extremities there is a fixed miter-wheel, C, which mesh in corresponding miter-wheels D D D, arranged along the line of the shaft E. This shaft extends the full length of the car, and is supported at inter-

vals by brackets F. Upon one or both ends of the said shaft there is a segment, H, whose teeth mesh in a corresponding segment, G, at the lower extremity of the lever I.

It will thus be seen that by moving the lever in the direction indicated by arrow all the doors will be opened simultaneously, and a reverse movement of the same will close all in a like manner.

I am aware that shutters have been opened and closed by a somewhat similar movement. This I do not claim; but,

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

In a car for elevated railroads, the outward-swinging doors A on the vertical shafts B, with fixed pinions C, meshing in the pinions D on the longitudinal shaft E, in combination with the lever I and segments G H, when constructed, arranged, and operating in the manner and for the use and purpose specified.

W. WILLSHIRE RILEY.

Witnesses:

FRANK A. BARTHOLOMEW,  
CHARLES H. NASH.