

(No Model.)

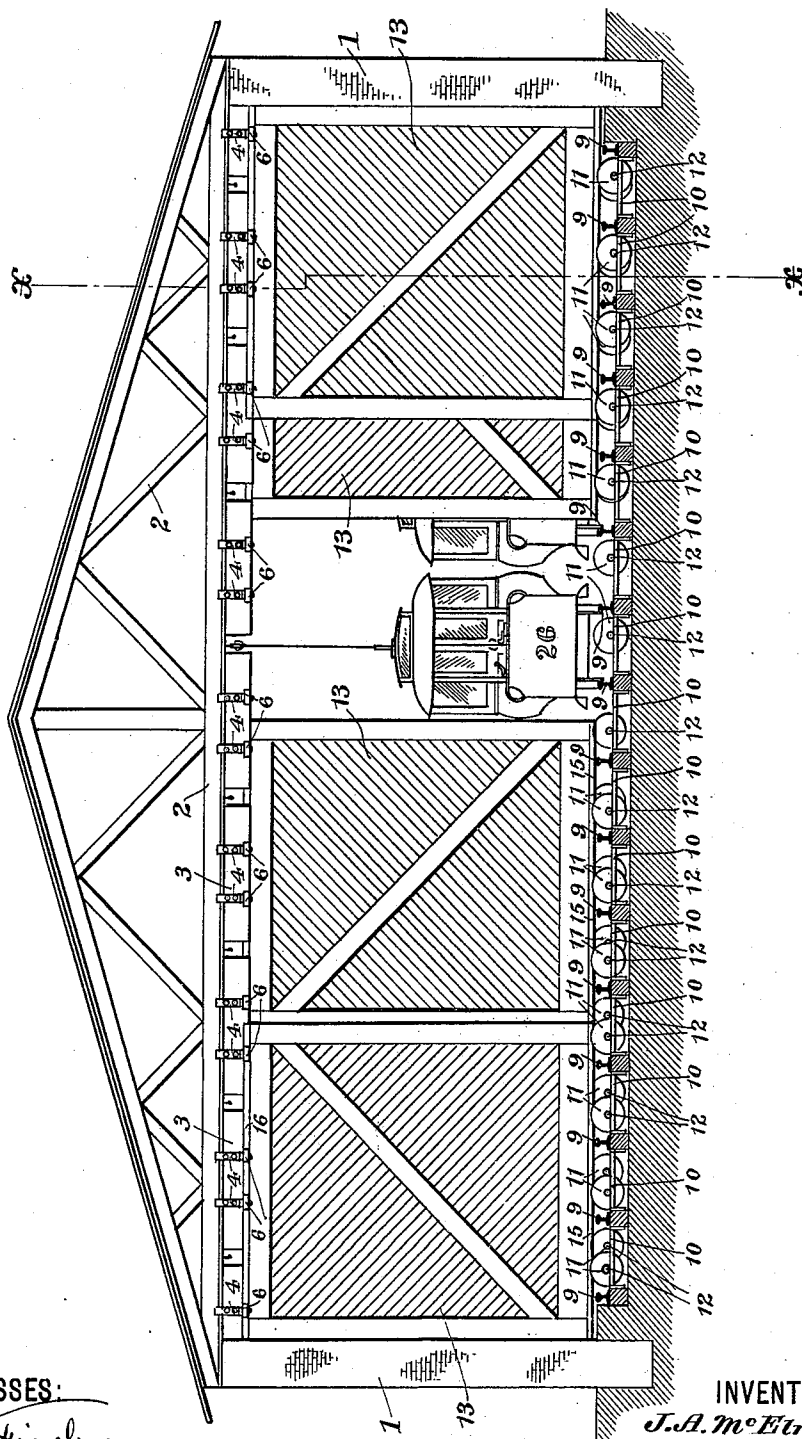
3 Sheets—Sheet 1.

J. A. McELROY.
SLIDING DOOR.

No. 562,141.

Patented June 16, 1896.

Fig. 1.



WITNESSES:

J. F. Smith.
M. L. Longden

INVENTOR

J. A. McElroy

BY *[Signature]* ATTY

(No Model.)

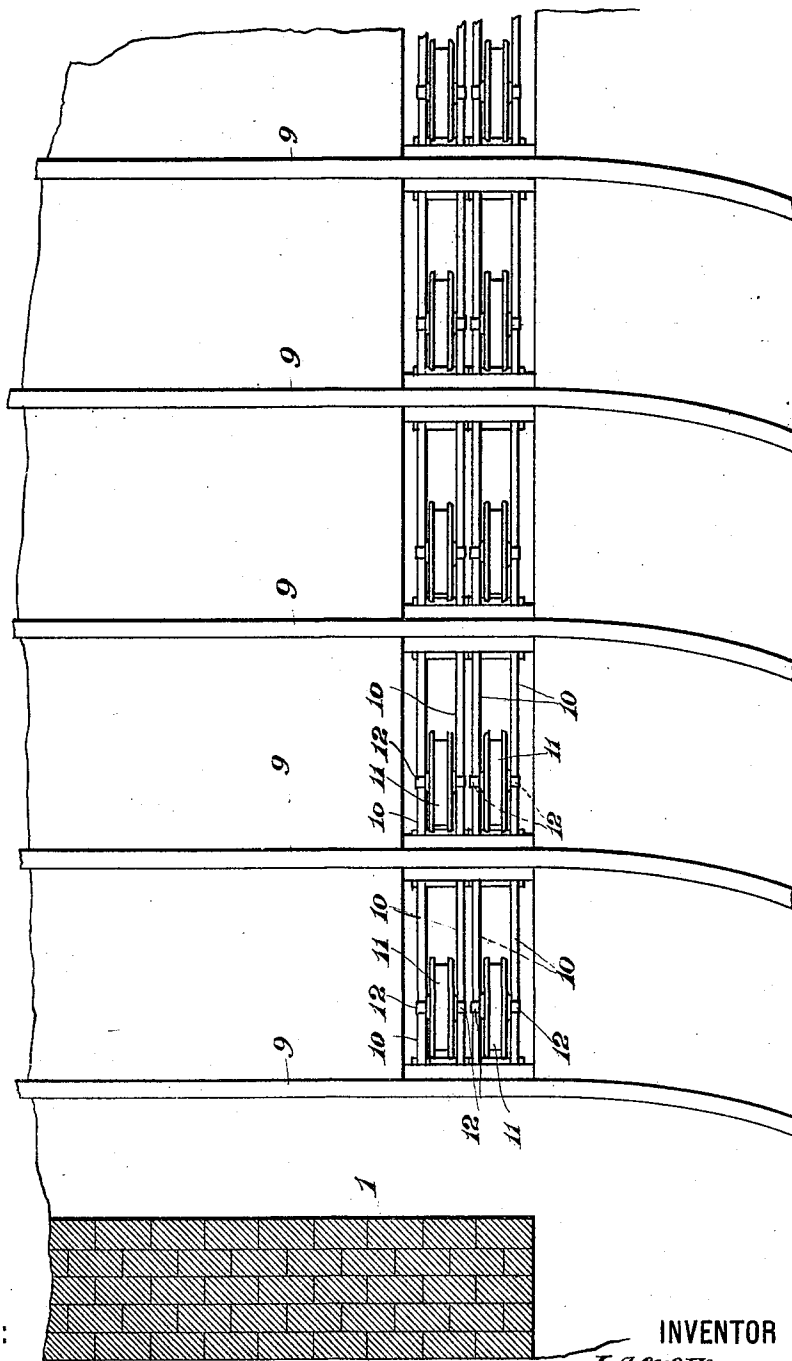
3 Sheets—Sheet 2.

J. A. McELROY.
SLIDING DOOR.

No. 562,141.

Patented June 16, 1896.

Fig. 2.



WITNESSES:

J. F. Smith.
M. S. Longley

INVENTOR

J. A. McElroy

BY *J. F. Smith* ATTY

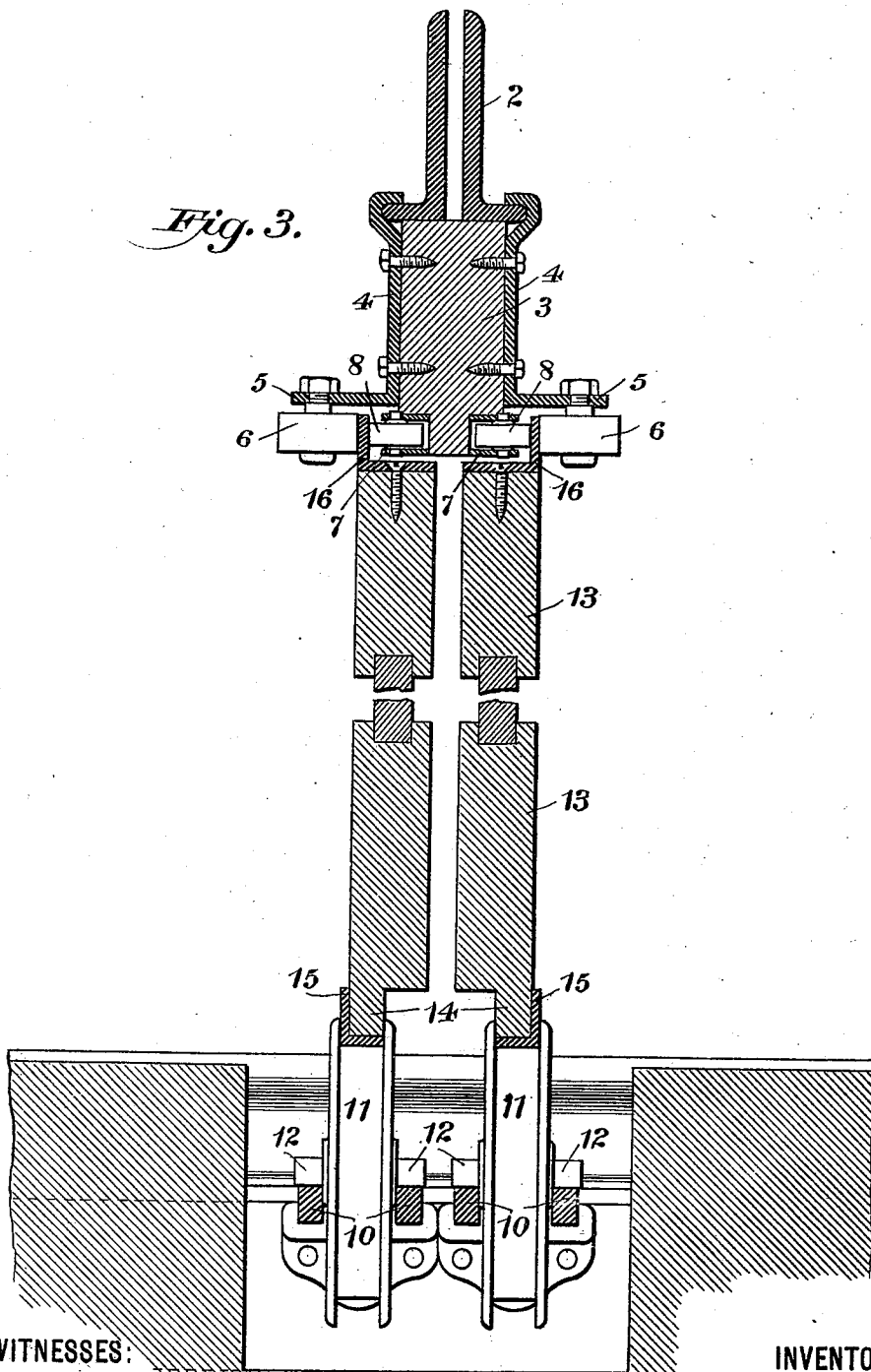
(No Model.)

3 Sheets—Sheet 3.

J. A. McELROY.
SLIDING DOOR.

No. 562,141.

Patented June 16, 1896.



WITNESSES:

J. F. Kitch.
M. T. Loughead.

INVENTOR

J. A. McElroy.

BY *J. F. Kitch.* ATTY

UNITED STATES PATENT OFFICE.

JOSEPH A. MCELROY, OF NEW YORK, N. Y.

SLIDING DOOR.

SPECIFICATION forming part of Letters Patent No. 562,141, dated June 16, 1896.

Application filed March 9, 1896. Serial No. 582,440. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH A. MCELROY, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Sliding Doors; 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 certain improvements in sliding doors, but has particular reference to the construction and operation of suitable doors for depots for surface street-cars.

In the accompanying drawings, which form a part of this application, Figure 1 is a front elevation of a street-car depot equipped with my improvement; Fig. 2, a broken ground plan, and Fig. 3 a section at the line *xx* of Fig. 1.

Similar numbers of reference denote like parts in the several figures of the drawings.

Doors of this description have heretofore been arranged to slide in various ways, chief among which are the overhead trolleys from which the doors are suspended, and rollers properly arranged below the doors on which the latter rest, and I therefore do not wish to be understood as laying claim to any novelty in the use of roller-supports, the object of my present invention being to provide a specific system for sliding doors or partition-sections in which the latter shall be properly supported and guided and capable of sliding movements with a minimum resistance.

1 represents any suitable street-car depot, and 2 a metal truss beneath the roof extending transversely of said depot. 3 is a beam of wood secured to said truss throughout its length by means of brackets 4. Within lateral extensions 5 of these brackets are journaled antifriction-rolls 6, which are so disposed as to revolve in a horizontal plane.

7 are blocks secured to the under side of the beam 3 in any suitable manner, and 8 are rolls journaled within these blocks so as to revolve in a horizontal plane in close proximity to the rolls 6.

In the construction shown there are four doors, each of which closes a double-track en-

trance, and these doors are all constructed precisely alike, and the various rollers which support them are all constructed and operated alike, so that it will be necessary to merely describe my improvement in connection with a single door and the various rollers operating with the same.

9 are the tracks on which the cars travel.

10 are short rails arranged in parallel pairs which are secured in any suitable and ordinary manner so as to extend between the car-tracks and transversely below the level of the railway-rails, and such transverse tracks or pairs of rails are arranged so that one pair of rails is about under each edge or face of the overhead truss. Each pair of these rails is in effect a continuous set of rails intersected by the car-tracks, as will be clear from Fig. 2.

11 are large flanged rollers which have small axles 12 extending from either side thereof, which axles rest upon the rails 10, so that it will be understood that said axles may revolve and travel freely along the rails.

13 are the doors, which are constructed in any suitable manner and are provided along their lower edges with parallel tongues 14, which project downwardly and are shod with metal angle-plates 15, which latter rest upon the rollers 11 at their greatest diameters between the flanges, so that it will be readily understood that the doors will have a smooth easy contact with the rollers and not be likely to wear at that point. The doors preferably alternate on opposite sides of the truss, thus giving a wide range of movement.

The top of each door is shod with a metal angle-plate 16, which latter is so disposed that it projects upwardly between the rolls 6, 8, whereby the doors are steadied at the top and also equipped with an easy rolling contact between said rolls.

The doors are with great facility rolled aside to open up a track, since the small contact of the axles with the rails affords the least resistance, while the fact that the doors are supported upon the rollers 11 at their greatest diameter greatly contributes to the ease with which the doors are operated. Moreover, by the use of my improvement, the car-rails and door equipment do not interfere with each other in the slightest, and therefore no es-

pecial care need be taken in the opening and closing of the doors.

Doors for car-houses are, as a rule, exceedingly large and heavy and they must be operated at times under disadvantageous circumstances, as, for instance, when impeded by snow or ice; but it will be observed that the contact of the axles with the rails, as well as the contact of the doors with the rollers, afford the advantages of ball-bearings and therefore the friction is very little.

In the present instance I have shown my improvement as applied under very difficult conditions in that the truss is not constructed as it should be were it to be made especially for equipment with my improvement. Instead of making the lower chord of this truss in the mannershown and securing the wooden beam thereto by the brackets 4, the truss could be made in any desired shape and the rolls 6 8 journaled directly to the truss itself, and I therefore do not wish to be limited to the wooden beam and the brackets in this particular connection.

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

1. In a railway station or building the combination of a plurality of railway-tracks extending into said building, door-supporting tracks arranged crosswise of the railway-tracks and below the level thereof, axles with their ends resting on said transverse tracks and wheels on said axles having their peripheries slightly above the railway-tracks, and a sliding door or partition-section resting on the said wheels, said door being suitably

guided at its upper end, all combined substantially as described.

2. In a railway-building, a plurality railway-track entering said building, a plurality of transverse tracks at a lower level than the railway-tracks, short axles with the ends supported on said transverse tracks, each axle having a flanged wheel thereon with the wheel-rim projecting above the railway-tracks, and a door resting on said wheel-rims and between the flanges, the top of said door being guided by wheels or pulleys on vertical axles and bearing against opposite sides of the door, all combined substantially as described.

3. In a railway-building, a plurality of railway-tracks entering the building, a truss crossing the building transversely near the top, a plurality of tracks extending transversely of and below the railway-tracks and about on line with the opposite sides of the truss, short axles resting on said transverse tracks and each carrying a flanged wheel with periphery above the level of the railway-tracks, and a plurality of doors or partition-sections resting on said flanged wheels, and arranged at opposite sides of the truss against which sides the upper ends of said doors or sections are guided, all combined substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH A. McELROY.

Witnesses:

J. S. FINCH,
M. T. LONGDEN.