

(No Model.)

M. DICKERSON.
VESTIBULE CAR.

No. 506,421.

Patented Oct. 10, 1893.

Fig. 1.

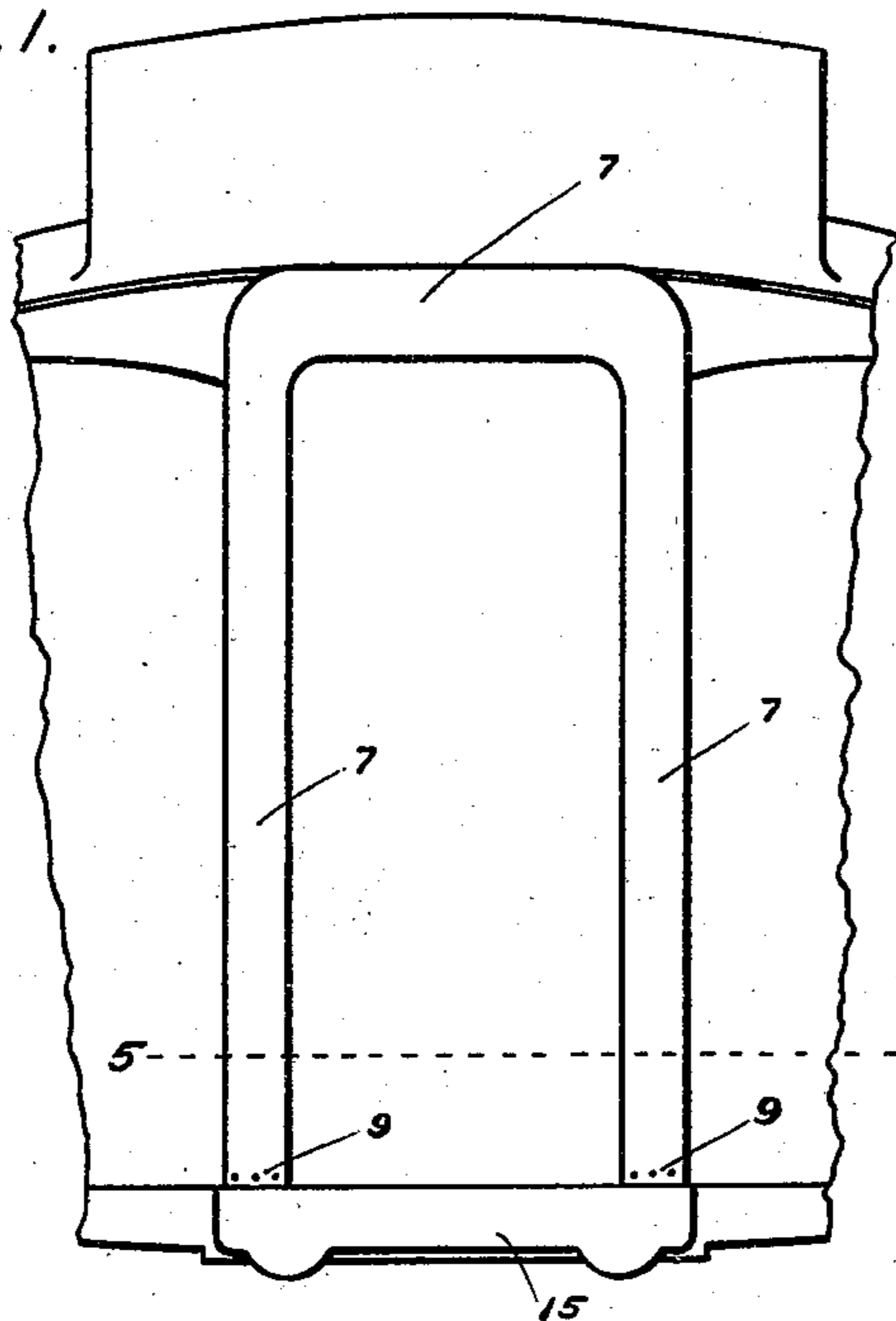


Fig. 2.

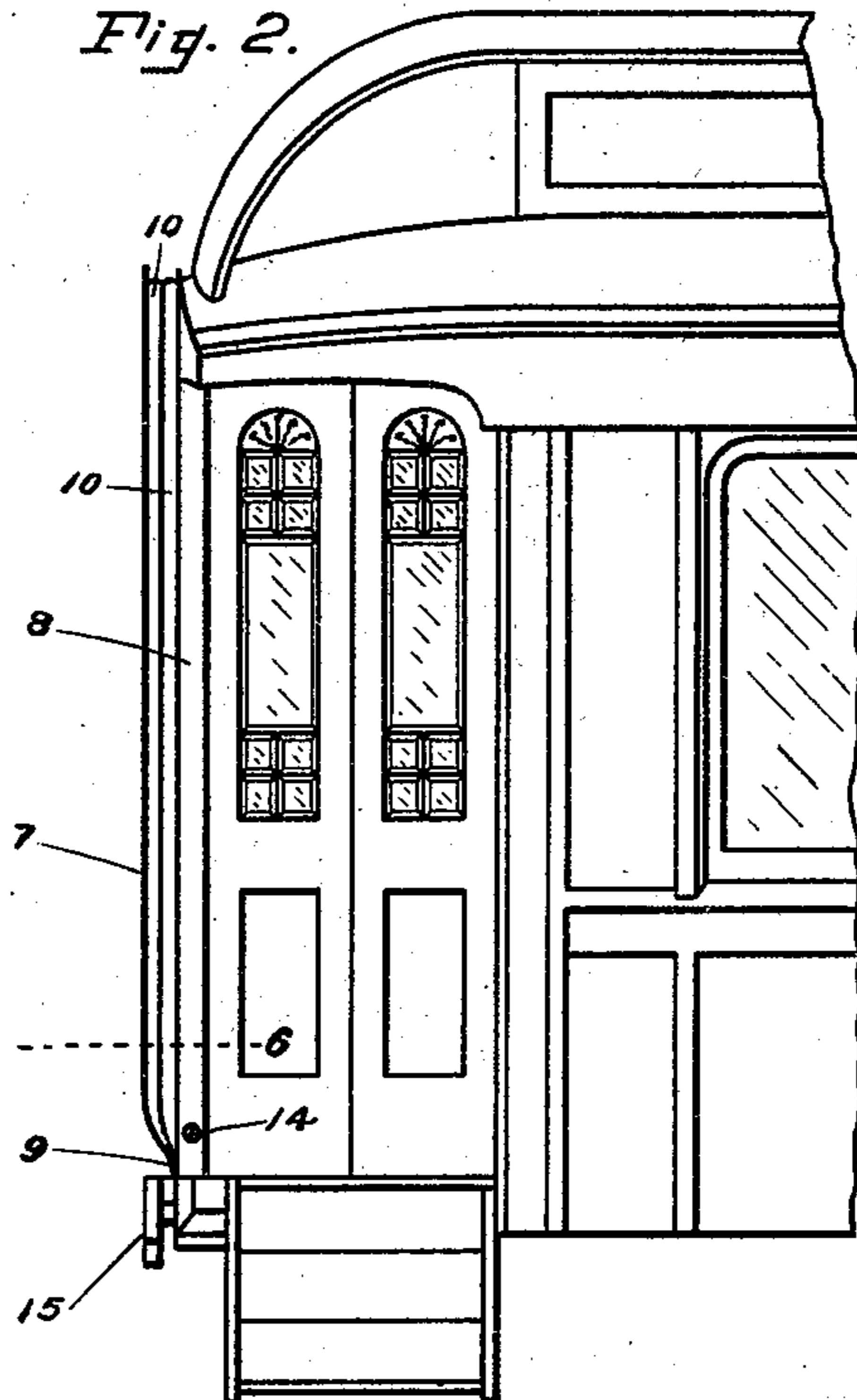
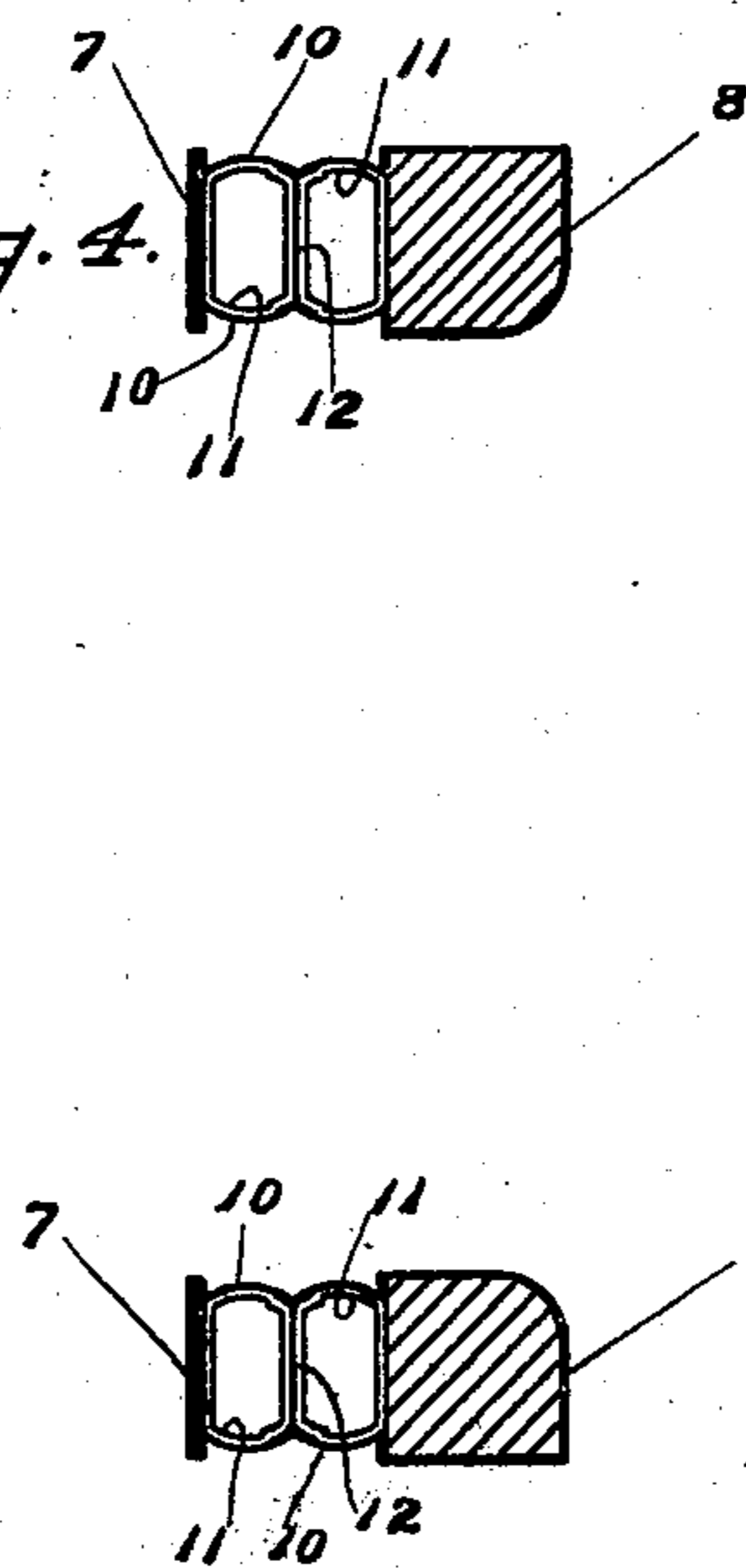


Fig. 3.



Fig. 4.



WITNESSES

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VESTIBULE-CAR.

SPECIFICATION forming part of Letters Patent No. 506,421, dated October 10, 1893.

Application filed November 15, 1892. Serial No. 452,068. (No model.)

To all whom it may concern:

Be it known that I, MALCOLM DICKERSON, a citizen of the United States, residing at Burgin, in the county of Mercer and State of Kentucky, have invented certain new and useful Improvements in Vestibule-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.

This invention relates to railway cars provided with vestibules on their platforms, and particularly to that feature of such cars which involves a close connection between the vestibules of adjoining cars so as to exclude dust and gases and prevent drafts.

The object of the invention is to provide a light, cheap and substantial construction which will at all times insure a close connection between adjoining cars irrespective of the swaying incident to transit over curves or change of grade.

The several features of novelty will be hereinafter more particularly described in the specification and definitely indicated in the appended claims.

In the accompanying drawings which illustrate the invention Figure 1 is an end view of a portion of a car provided with my improvements. Fig. 2 is a side elevation. Fig. 3 is an elevation of a flexible or collapsible tube used in carrying out my invention. Fig. 4 is an enlarged sectional view of the tubes and their supports.

The vestibule is formed on the platform of a car in the usual manner. In order to form a close connection between adjoining cars and avoid sudden shock during the motion of the train I provide at the end of each car an air cushion projecting from the end of the vestibule in such a way that when the two cars are coupled together a close connection will be made. The air cushion is formed of one or more tubes of flexible material which are supported on suitable posts at the sides of the vestibule and are protected from injury or abrasion at the point of abutment with the cushion of an adjoining car by means of a face plate which is preferably formed of some tough material such as sole leather. The tubes are so constructed that they may be filled with air or other gas under pressure,

either by a bellows or by connection with the pipe system of the air brakes.

Referring to the drawings, 8 represents two vertical posts placed at the side of the vestibule formed on the platform at the end of a car. To these posts is attached by means of canvas or any other suitable tough and flexible material a face plate 7 preferably made of sole leather or some other material well adapted to withstand the effects of shock and abrasion. This face plate is made of an arch shape to conform to the outline of the vestibule and is secured at the base to the vertical posts or timbers by means of screws indicated at 9, or in any other suitable manner which will permit of the lower ends being loosened for the insertion of the tubes. There may be one or more of these tubes as may be found necessary, and they are inserted between the canvas sides connecting the face plate to the posts or timbers 8 by removing the screws 9 and thrusting in the tubes. One of the tubes is indicated at 11. It is formed preferably of rubber or some other elastic material, although a flexible inelastic material would yield good results, and its lower end is provided with a contracted tubular terminal as indicated at 13, which is brought through the sides of the posts 8 as indicated at 14 and terminates in a nipple indicated at 14, provided with a valve or stop cock in a manner well understood so as to permit of its being inflated and to prevent the escape of the air or gas with which it is inflated. Inflation may be accomplished by means of a bellows in a manner well understood, or the nipple may be connected temporarily with the pipes of the air brake. If two or more tubes are used it would be advantageous to use between them a partition wall, as indicated at 12, of flexible material, thus forming a casing for each tube which will prevent displacement. When the parts are assembled as described and the tubes inflated the vestibule extension will couple two cars provided with the improvements together and form a close connection between them capable of conforming to all motions of the train. The air confined in the tubes forms an elastic cushion preventing shock to the cars and holds the face plates in sufficiently close contact to prevent the entrance of air, dust or gases. The tubes

may be made of such a size that the face plates will be brought into contact before the tubes are fully inflated so that by increasing the air pressure the degree of elasticity of the cushion between adjoining cars may be varied.

At 15 is indicated the buffer, which constitutes no part of my invention and need not be therefore further described.

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

15 1. A railway car provided with a vestibule having mounted on its outer end a flexible casing containing a collapsible tube or tubes filled with air, and a face plate connected to said casing, said face plate being adapted to form with the vestibule of an adjoining car

a close connection to prevent the entrance of dust and gases.

2. A railway car provided with a vestibule having mounted at the end thereof a flexible casing supporting an arch shaped face plate, said casing containing a closed tube or tubes filled with air.

3. A railway car provided with a vestibule having mounted at its end a flexible casing containing a collapsible tube or tubes terminating in an exposed valved opening to permit inflation with air.

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

MALCOLM DICKERSON.

Witnesses:

J. L. HARTZELL,

JOHN J. NOONAN.