

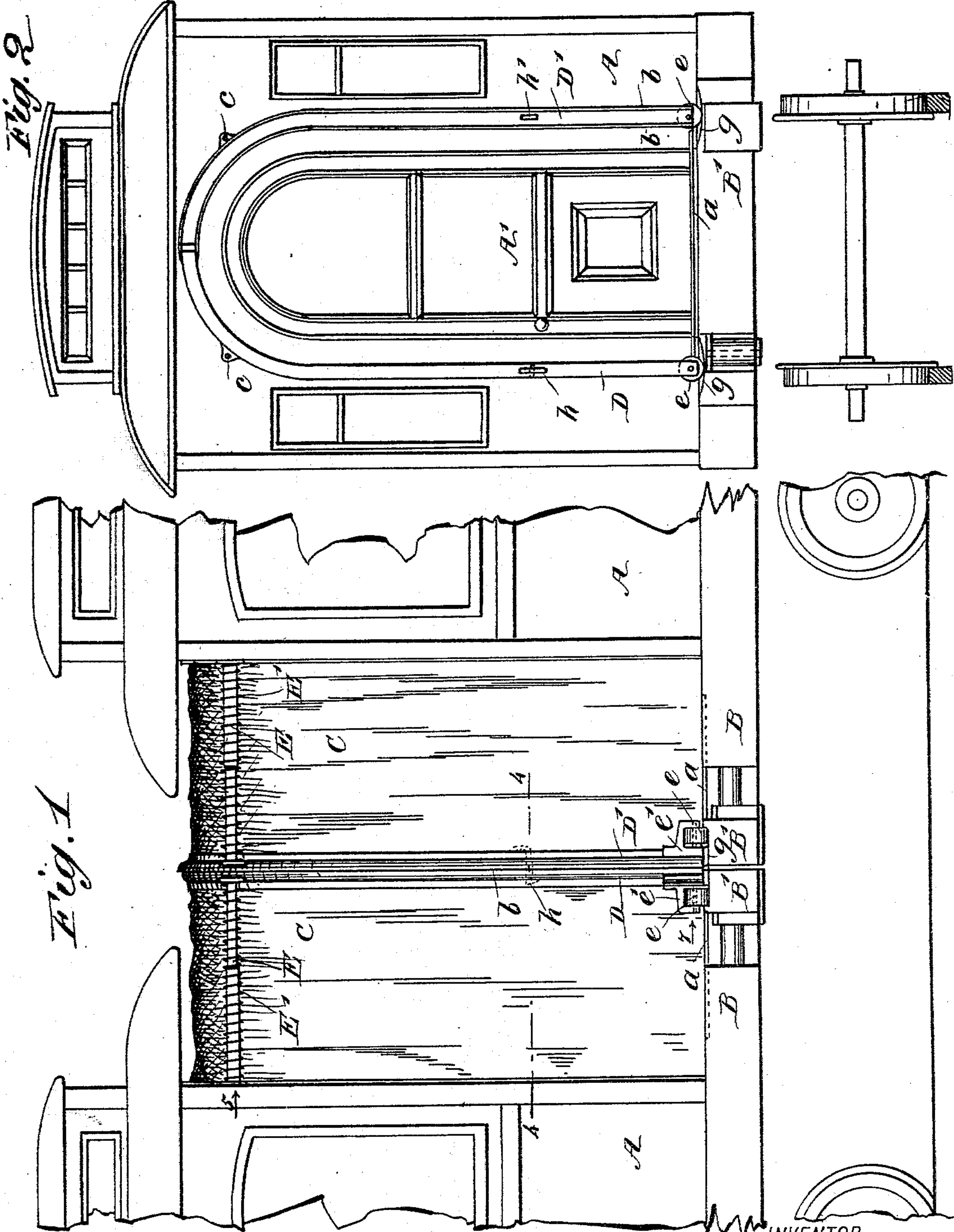
(No Model.)

2 Sheets—Sheet 1.

L. S. MANNING.
CAR VESTIBULE.

No. 515,601.

Patented Feb. 27, 1894.



WITNESSES:

C. Neveux
C. Sedgwick

INVENTOR

L. S. Manning
BY *Munn & Co*

ATTORNEYS.

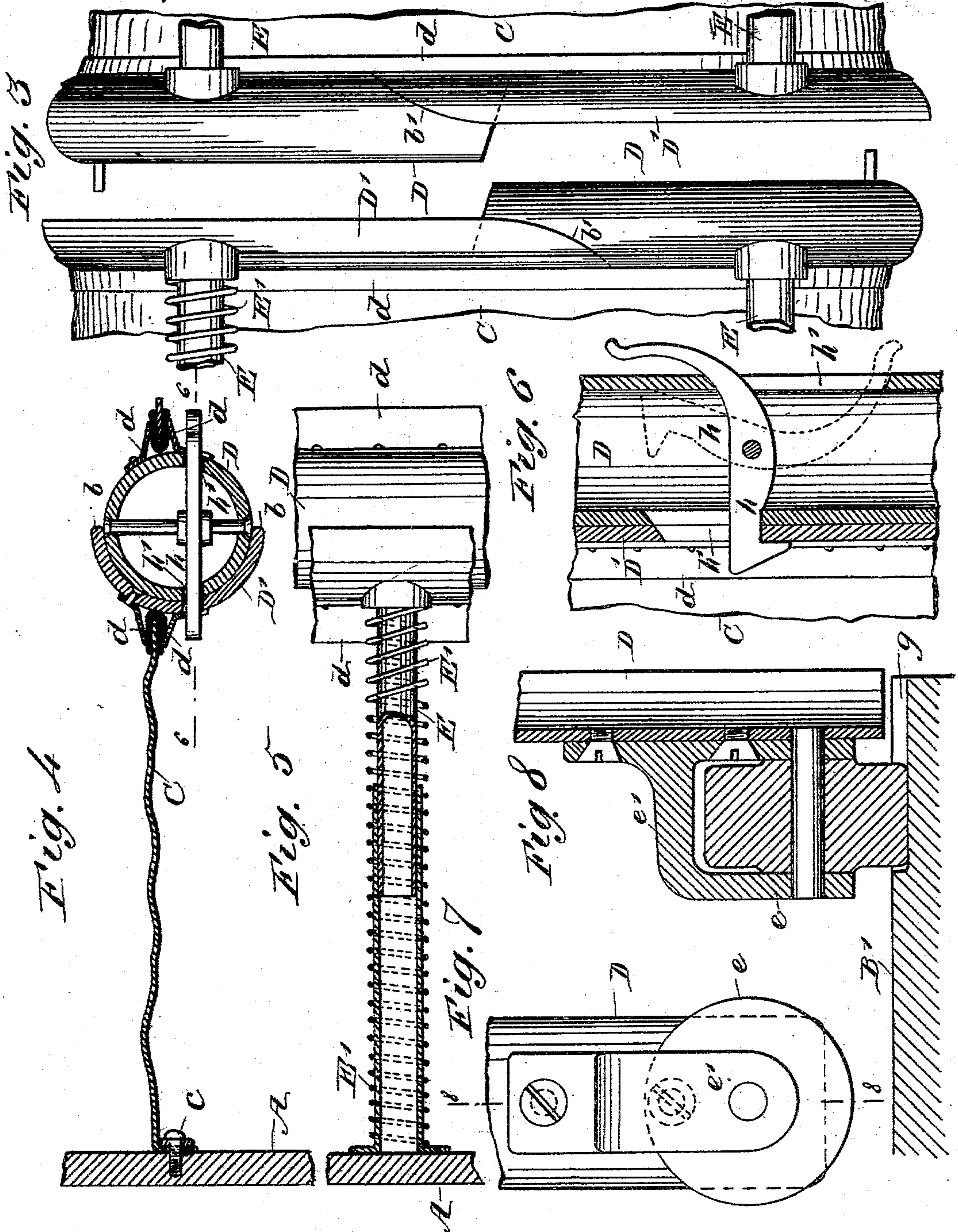
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UNITED STATES PATENT OFFICE.

LEMUEL S. MANNING, OF ALESSANDRO, CALIFORNIA.

CAR-VESTIBULE.

SPECIFICATION forming part of Letters Patent No. 515,601, dated February 27, 1894.

Application filed September 2, 1893. Serial No. 484,634. (No model.)

To all whom it may concern:

Be it known that I, LEMUEL S. MANNING, of Alessandro, in the county of San Bernardino and State of California, have invented new and useful Improvements in Car-Vestibules, of which the following is a full, clear, and exact description.

My invention relates to improvements in vestibules for passenger cars, and has for its object to provide a novel, simple and superior device of the type indicated, which will be especially well adapted to coact with an improved telescopic car platform, which is the subject of another application, but that may also be applied to any longitudinally yielding platform, and provide shelter as well as safety for passengers moving from one car to another car of a train.

To this end my invention consists in the construction and combination of parts, as is hereinafter described and claimed.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a partial side view of two car bodies having yielding platforms thereon, and the improvement in connection with the car bodies and platforms. Fig. 2 is an end view of a car and the half portion of the improved vestibule belonging to it. Fig. 3 is an enlarged plan view, in part, of the improvement, showing the novel means for detachably connecting the sections of the vestibule. Fig. 4 is an enlarged sectional plan view on the line 4—4 in Fig. 1. Fig. 5 is an enlarged, partly sectional, side view of novel details of construction, taken opposite the arrow 5 in Fig. 1. Fig. 6 is an enlarged sectional side view on the line 6—6 in Fig. 4. Fig. 7 is an enlarged side view of a detail of construction opposite the arrow 7 in Fig. 1; and Fig. 8 is a vertical sectional view on the line 8—8 in Fig. 7.

The improved vestibule is applicable to any style of passenger car body, that shown at A, being of the usual construction. For efficient service, the vestibule should be provided with a longitudinally-yielding base, such as is represented at B, in Fig. 1, the front transverse timber B', of each adjacent

platform being held in connection with the main portion of the same by spring devices (not shown) so that the apron *a*, provided for each platform, and attached by its forward edge to the transverse timber B', may longitudinally slide and laterally vibrate on the main platform floor, and thus furnish a safe passage-way from one car to another when the train is at rest or in motion, the peculiar construction of the impinging platforms serving to afford a continuous foot board from car to car, while the train is running on curves as well as upon a straight track. As the car platform thus briefly explained is the subject of another application it is not necessary to further describe it in this connection.

The improved vestibule consists of a flexible, waterproof cover C, for each car platform B, which cover is secured in arched form over and on each side of the end door A', at one edge that is attached to the end wall of the car by screws or any other preferred means, as shown at *c*, in Figs. 2 and 4.

The cover C for each platform may be made of any suitable material, and is so proportioned in length that its edge which is opposite the one which is secured to the end wall of the car body A, will reach to the outer edge of the timber B'. An arched supporting frame is provided for the cover C, at its outer edge, comprising two sections D D', that join at the transverse center of the top of the frame. Each frame half section is laterally bent an equal degree so as to produce a complete arch when said sections are joined. One half section D, is formed of a piece of metal tube having a suitable diameter and thickness of wall, to provide the necessary stability and avoid improper weight. The portion D' of the arched frame, is composed of a metal shell that is semi-tubular in cross section, as indicated in Fig. 4, the width between the edges *b* of this semi-circular frame portion being such as will adapt said half-section to receive a frame half section similar to D, and incase one half of its body. As represented in Fig. 3, at *b'*, the frame section D' may overlap at its adjoined end the end portion of the tubular part D, and be thereto secured, or the frame section D' can be formed integrally with the other section if preferred. The outer

edge of the flexible cover C, is secured to the arched frame D D', by plate clips *d*, as shown in Fig. 4, or by any other means, it being only essential that a strong, neat waterproof joint be provided at the point of junction of the cover with the frame.

The arched frame D D', is preferably sustained in a vertical position by two similar telescopic braces E. These each consist of two pieces of pipe adapted to neatly slide one within the other. One end of each telescopic brace is affixed to the end wall of the car, and said ends are arranged at such a distance apart as will permit the cover C, to be located between them, the outer ends of the braces having a secured engagement with the arched frame D D', at opposite points, the braces being thus projected in the same horizontal plane from the end wall of the car parallel with each other and at right angles to the frame, vertically considered. A spiral spring E' is located on each brace E, and bears with its ends on the car body and the frame D D', or the springs may be placed within the tubular braces E, and operate with equal efficiency. The lower ends of the frame D D' are maintained an equal distance from the upper surface of the car platform B, by the rollers *e*, which are rotatably sustained in connection with the frame members by the bracket frames *e'*, that are attached to said frame sections by screws or rivets, as indicated in Figs. 7 and 8. From the relative position of parts the rollers *e* are made to rest upon the transverse timber B' of the platform B, and are prevented from lateral displacement by seating each roller in a longitudinal recess, as shown at *g* in Figs. 1 and 8, said recesses being deepened toward their centers of length, so that a lateral movement of the yielding platform, due to traversing track curves, will cause the rollers to roll up an incline, and have a tendency to return by gravity to a normal position when the track is straight.

It will be seen that when two cars having the improvement placed on each end are moved on the same track toward each other, and the timbers B' of the platform B, have contact, the arched frame D D' of one vestibule will interlock with the members of a like frame on the other car vestibule, the tubular frame section D of one frame entering the semicircular or half tubular section D' of the other frame, which will render the connected frames continuous as a single tubular frame.

In Figs. 4 and 6, a preferred means for detachably securing the engaged frames of two vestibule sections is shown, comprising a latch-hook *h*, for each side of the joined frames, which hooks are located in longitudinal slots *h'* oppositely cut in the frame sections D D', at convenient points for manipulation, the vibration of the hooks into the position shown by full lines in Figs. 4 and 6 serv-

ing to lock the joint frames together, an opposite vibration indicated by dotted lines in Fig. 6, effecting a release of the frames so as to permit an opposite movement of the cars when this is desired.

When on two cars having the improvement, the vestibule frames D D' are secured together as stated, there will be a continuous covered passageway afforded, extending from one car door to the other car door, and as the braces E with their springs E', will yield, and the rollers *e* move laterally to compensate for the relative changes in position assumed by the cars in transit over curves as well as on straight portions of the railroad, it will be evident that the invention is practical in all its details, and affords a simple, inexpensive, and convenient attachment for passenger cars, that conduces to the safety and comfort of passengers.

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

1. A car vestibule, comprising an upright frame spring-pressed above on each side, supported on the platform by laterally traveling rollers, and having a flexible cover, substantially as described.

2. A car vestibule, comprising an upright frame, rollers supporting the frame on the car platform, a flexible cover fast by one edge to the frame and at the opposite edge to the end of the car, telescopic braces connected to the frame and the end of the car, and expanding springs for the braces, substantially as described.

3. In a car vestibule, the combination, with a car, and a yielding platform thereon, of a vestibule comprising an arched frame having one half section tubular and the other half section semi-tubular, a flexible cover joined at opposite edges to the end of the car and to the frame, telescopic braces connected to the frame and the end of the car, and expanding springs for the braces, substantially as described.

4. The combination, with two cars having yielding platforms, of a self-adjusting vestibule between the opposing ends of the cars, comprising two arched frames adapted to interlock with each other, a detachable securing device for the frames, roller supports for the ends of the frames on the platforms, flexible covers fastened at their ends to the frames and cars, a pair of telescopic braces for each frame, and spiral springs supported by the braces and pressing between the frames and the ends of the cars, substantially as described.

LEMUEL S. MANNING.

Witnesses:

E. M. CLARK,
F. W. HANAFORD.