

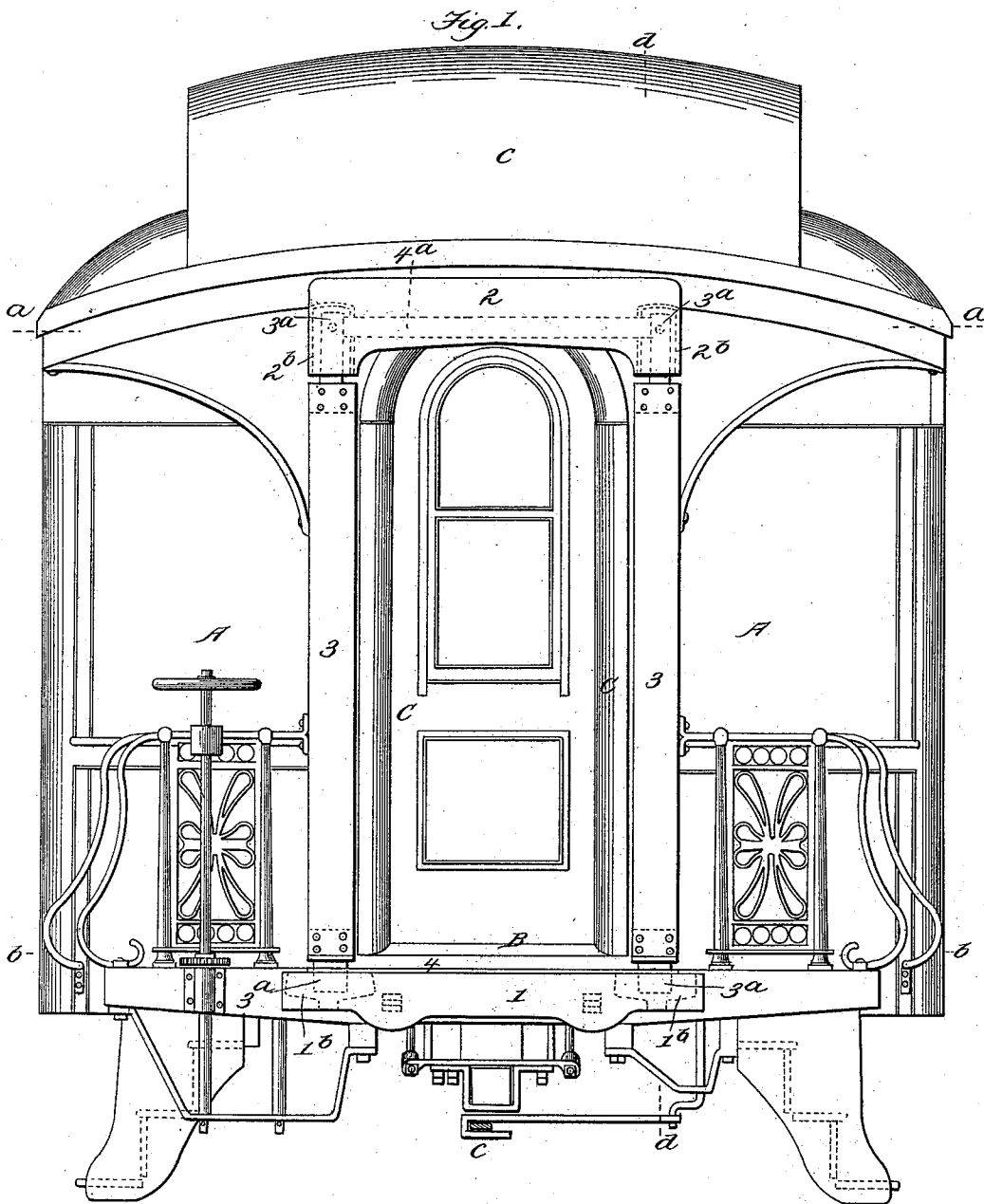
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3 Sheets—Sheet 1.

H. C. BUHoup.
CAR VESTIBULE DIAPHRAGM.

No. 530,745.

Patented Dec. 11, 1894.



witnesses:

Harry B. Potter.
Mr. Darby.

Fig. R.

Inventor,

Amy C. Kuhoup
 F. V. Ritter Jr.
 May.

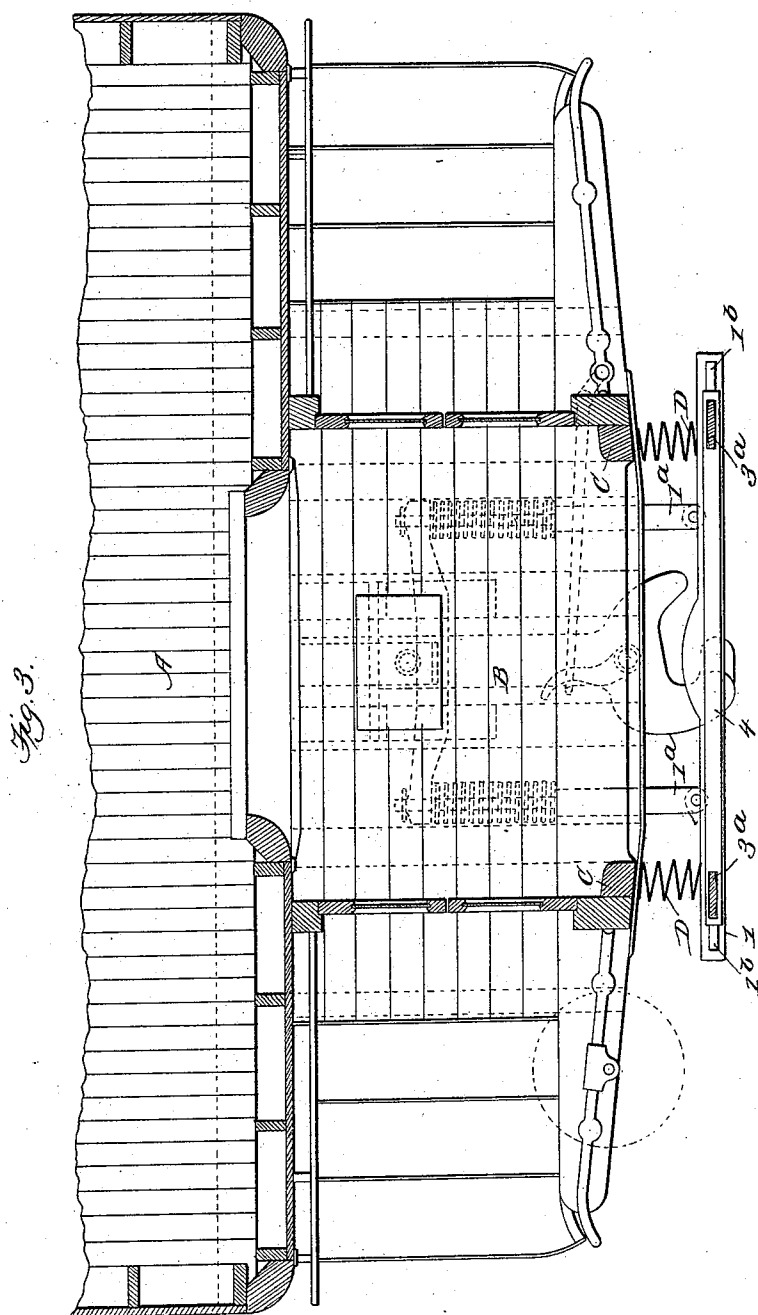
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witnesses:

Harry S. Rohrer.
M. Darley.

Inventor:

Harry C. Buhoup
By F. W. Ritter, Jr.
Att'y.

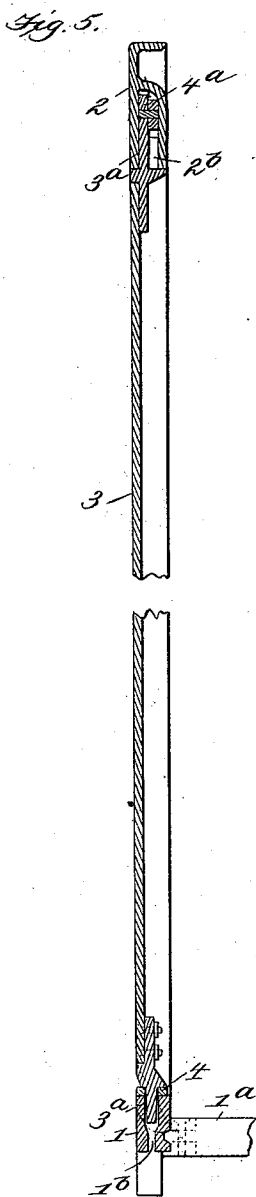
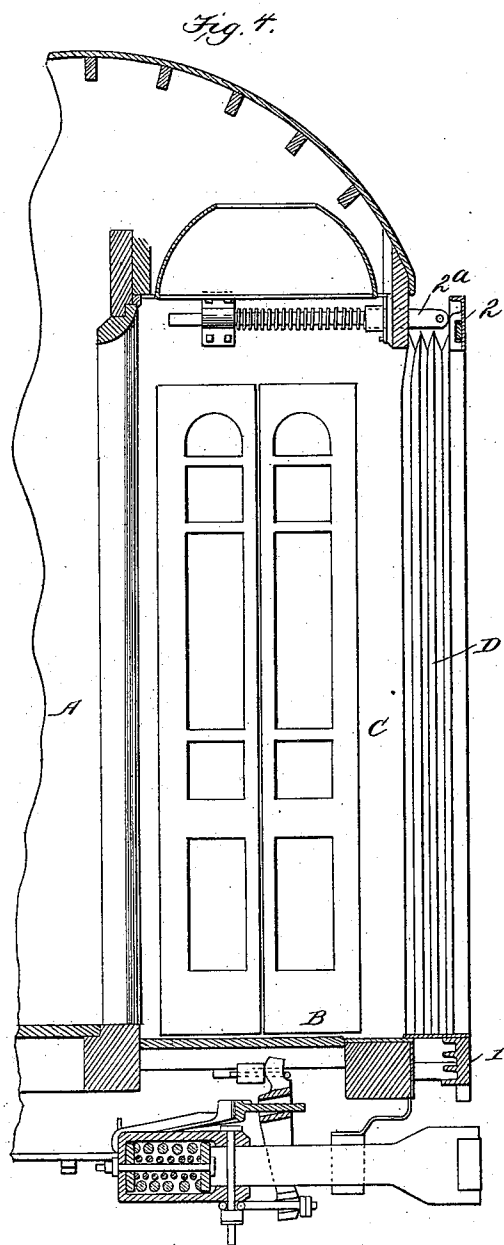
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Witnesses:
Wm. D. Rohrer.
M. Darby.

Inventor:
Harry C. Buhoup
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Atty.

UNITED STATES PATENT OFFICE.

HARRY C. BUHOUP, OF CHICAGO, ILLINOIS.

CAR-VESTIBULE DIAPHRAGM.

SPECIFICATION forming part of Letters Patent No. 530,745, dated December 11, 1894.

Application filed August 30, 1894. Serial No. 521,749. (No model.)

To all whom it may concern:

Be it known that I, HARRY C. BUHOUP, a citizen of the United States, residing at Chicago, in the county of Cook, State of Illinois, have
5 invented certain new and useful Improvements in Car-Vestibule Diaphragms; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, in
10 which—

Figure 1, is an end view of a car, and vestibule provided with a diaphragm or face plate embodying my invention. Fig. 2, is a sectional view of the upper horizontal buffer, the upper ends of the vertical legs of the diaphragm or face plate and the upper link or span-bar—taken on the line *a—*a** Fig. 1. Fig. 3, is a horizontal section, on the plane of the platform—line *b—*b** Fig. 1, showing the lower
15 ends of the vertical legs in section, and the lower link or span-bar in plan view. Fig. 4, is a vertical central section of the vestibule and diaphragm or face plate on the line *c—*c** Fig. 1. Fig. 5, is a vertical section of a face
20 plate or diaphragm embodying my invention, taken on the line *d—*d** Fig. 1.

Like symbols refer to like parts wherever they occur.

My invention relates to that class of passenger cars wherein vestibules are employed
30 to form a continuous covered passage-way or closed way between adjacent cars, and has for its object to provide abutting diaphragms or face plates which will move laterally in unison or together, without reference to the relative position of the cars to which the vestibules and diaphragms are attached.
35

To this end my invention, generally stated, embraces the combination with an upper and
40 a lower horizontal buffer of interposed vertical legs loosely connected above and below with said buffers so as to have lateral movement independent of said buffers and the cars to which they are attached.

I will now proceed to describe my invention more fully so that others skilled in the art to which it appertains may apply the same.

In the drawings A indicates the car body, provided with the usual platform B on which
50 are erected the fixed or stationary portions of

the vestibule C, the posts and roof thereof being connected with the diaphragm or face plate by the usual bellows fold flexible connections D, or their equivalent—the whole
55 being constructed in any of the well known or approved forms known to the art.

1 indicates a lower horizontal buffer plate, and 2 an upper horizontal buffer plate each of which is supported by two spring projected stems 1^a and 2^a whereby the buffers are main-
60 tained in effective contact under the approach and recession of adjacent cars in pulling or backing, and said stems are preferably pivotally attached to the horizontal buffer plates 1 and 2 to accommodate the cant-
65 ing of the plates in curving.

For purposes of illustration, pivoted and spring projected stems, and horizontal plates devoid of lateral movement have been selected, but it is to be understood that any
70 known form of horizontal top and bottom buffers may be employed if desired.

The horizontal buffer plates 1 and 2 are each provided at or near their outer ends with elongated slots 1^b 1^b and 2^b 2^b or equivalent
75 pockets for the reception of the reduced ends 3^a 3^a of the verticals or parallel legs 3, 3—said ends being free to play laterally in the elongated slots of the upper and lower horizontal buffers so that the legs 3, 3, and those with
80 which they make contact, may be free to move laterally independent of the said buffers.

In order to maintain the parallelism of the legs 3, 3 at all times and during all movements thereof the same are preferably cou-
85 pled above and below by links or span-bars 4, 4^a, the lower of which (4) may have slots for the passage of the reduced lower ends 3^a 3^a of the verticals or legs 3, 3, (see Fig. 3) while the upper link or span-bar (4^a) may be pivotally connected with the verticals, as indicated in Figs. 1 and 2.
90

While span-bars are shown for the purpose of maintaining vertical legs in their proper position, other methods may be used
95 to attain the same object, as for instance, springs located in upper and lower buffers bearing against the vertical legs at or near their upper and lower ends.

Having thus described my invention, what 100

I claim, and desire to secure by Letters Patent, is—

In a car vestibule, the combination with upper and lower horizontal buffers, of interposed independent vertical legs loosely connected with each of said buffers: substantially as and for the purposes specified.

In testimony whereof I affix my signature, in presence of two witnesses, this 28th day of August, 1894.

HARRY C. BUHOUP.

Witnesses:

R. E. JANNEY,
D. B. MASON.