(No Model.)

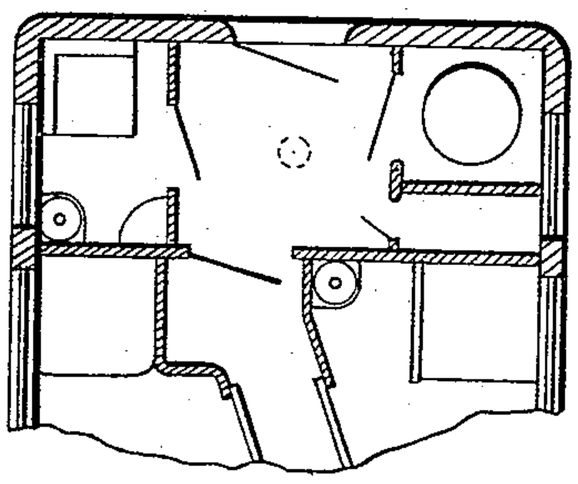
2 Sheets—Sheet 1.

E. G. ALLEN.

SLEEPING CAR.

No. 446,315.

Patented Feb. 10, 1891.



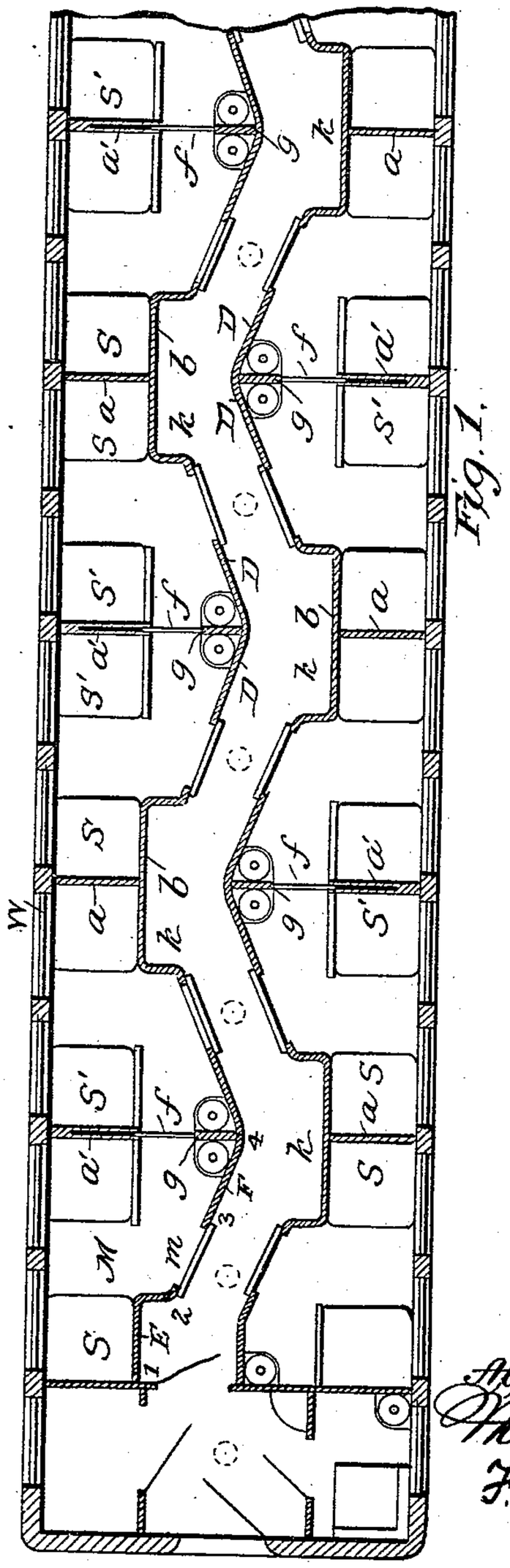


Fig. 1.

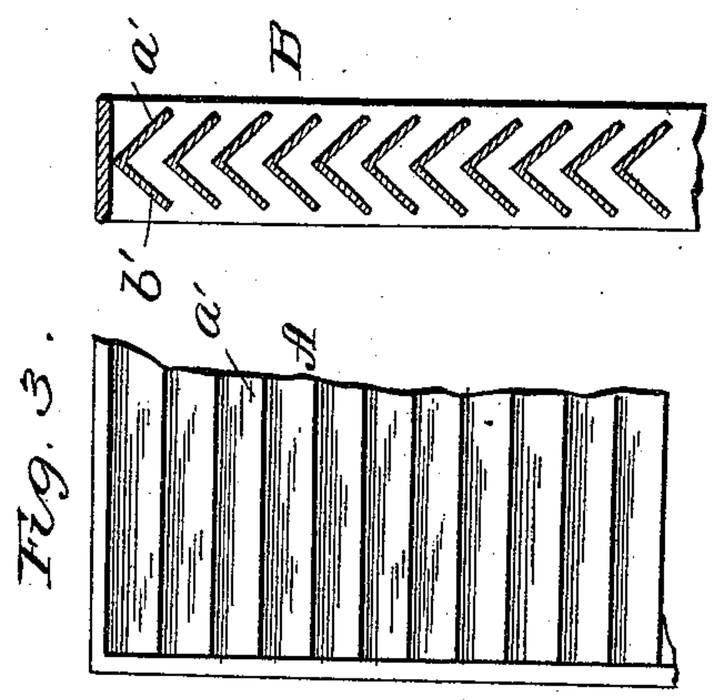


Fig. 3.

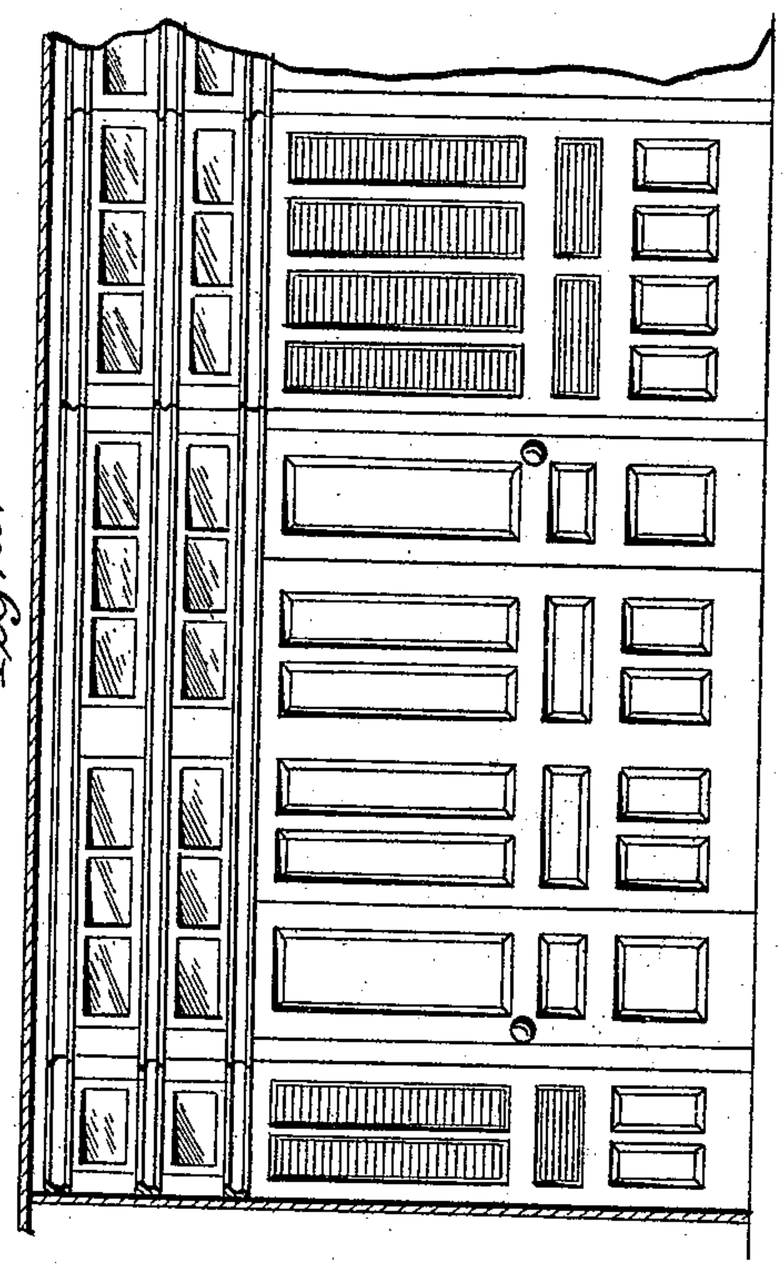


Fig. 2.

Attest
Thos. Donaldson
F. L. Middleton

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E. G. Allen
by Ellis & Spear
Atty.

(No Model.)

2 Sheets—Sheet 2.

E. G. ALLEN.

SLEEPING CAR.

No. 446,315. Patented Feb. 10, 1891.

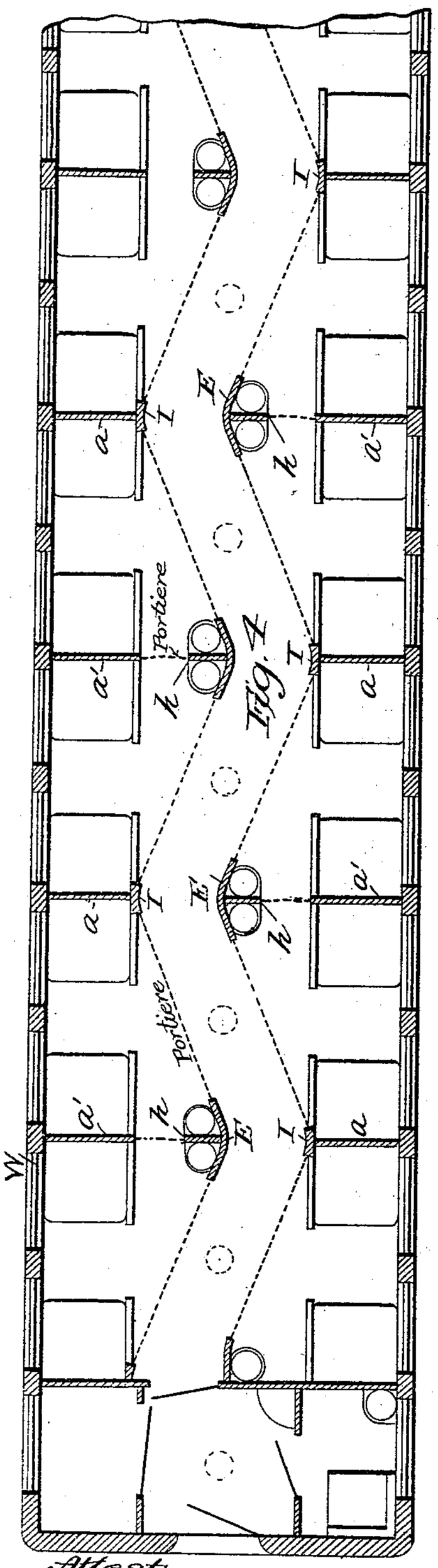

Fig. 4.

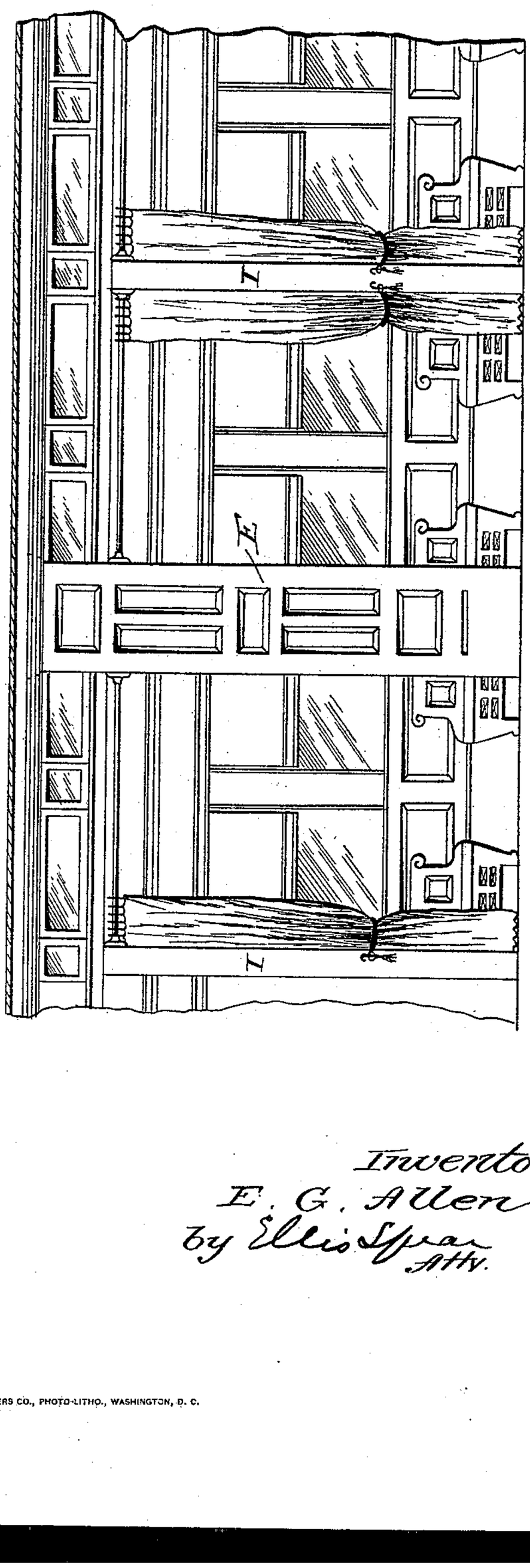

Fig. 5.

Attest
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F. L. Middleton

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UNITED STATES PATENT OFFICE.

ELBRIDGE G. ALLEN, OF NEW HAVEN, CONNECTICUT.

SLEEPING-CAR.

SPECIFICATION forming part of Letters Patent No. 446,315, dated February 10, 1891.

Application filed September 30, 1890. Serial No. 366,640½. (No model.)

To all whom it may concern:

Be it known that I, ELBRIDGE G. ALLEN, a citizen of the United States of America, residing at New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Sleeping-Cars, of which the following is a specification.

The invention includes the general principle of construction and arrangement shown in an application for Letters Patent filed by me in the United States Patent Office, on the 18th day of March, 1890, and having the Serial No. 344,297, in which the apartments or sections of the car project alternately first from one side of the car and next from the other, leaving a sinuous or zigzag central passage longitudinally of the car. It includes, also, an arrangement of doors or entrances in the inclined sides, and an interior angular space at the apex or point of general projection of the apartment into the car or floor-space conveniently adapted to be occupied by the basins or other furniture of the apartment. This construction is shown in another application for Letters Patent filed by me in the United States Patent Office on the 23d day of June, 1890, Serial No. 356,395.

In the invention herein described my principal object is to secure double apartments or apartments composed of communicating sections, while retaining the advantages of ample space in the sections and room for all the requirements of toilet in all the sections, together with the advantages of the constructions in the applications referred to and others, as hereinafter described.

In the construction shown herein the sections of the series on one side are alike and are opposite like sections of the series on the other side of the car, but are in reversed position. The sections are wide at one end and narrow at the other, the wide ends or projections of those of one series being opposite the narrow ends of those of the other, and this construction, which necessarily includes a sinuous or zigzag passage, allows communication between the sections of one double apartment, the larger ends of which are abutting. In the construction shown herein I have illustrated for convenience seats like those of the ordinary Pullman car, these seats being placed back to back and extensible to form the beds, while the common back-supports form end partitions between the beds; but I do not confine myself to the use of such seats and beds, nor do I limit myself to any particular kind of partitions. Those which divide the apartments from the passage are necessarily oblique to the longitudinal line of the car and of sinuous or zigzag form; but they may be wholly permanent or may consist of portières with only such permanent portions or posts as are necessary for supports.

I have illustrated my invention in the accompanying drawings, in which—

Figure 1 shows a horizontal section of my improved car, the section taken through the partitions, and showing the passage, the apartments, and the seats in plan. Fig. 2 shows a side elevation of the partitions and doors dividing the apartments from the passage, the figure showing only a part of the entire car. Fig. 3 shows at A an elevation and at B a section of a ventilating-panel of the walls. Fig. 4 represents a horizontal section similar to Fig. 1 of a car having portières in the place of the apartment walls and doors, but involving the same principle of construction and arrangement. Fig. 5 shows an inside view in elevation of the apartments and portières.

In the drawings, W indicates the outside walls of the car. I have shown at S the ordinary Pullman seats as conveniently representing any desired form of seats which the ordinary use of my invention would require to be convertible into beds. The end walls of the double apartments are represented at *a* and form the entire divisional wall between two double apartments. They are located between two seats which face in opposite directions, the wall forming a supporting-back for both. The seats S S are inclosed at the inner side by the passage-wall *b*, parallel with the side of the car, which may be either a solid wall or (preferably) a ventilating-panel—such as shown, for example, in Fig. 3. By the use of these slatted partitions perfect privacy is secured to the occupant of the compartment, while at the same time ventilation is provided. Instead of using the ordinary inclined slats, I provide a partition having slats upon one

side extending approximately at right angles to the slats adjoining, so that the inside slat intercepts the view from the inside and the outside slat shuts off observation from the inside. Thus utmost privacy is secured. The slats are indicated at a' and b'. This slatted partition is desirable when a permanent partition is used, especially at the end of the compartment when the inner wall is in close proximity to the seat. The seats S′ constitute another pair, also facing in opposite directions and divided by the wall or partition a', which forms part only of the dividing-wall between the sections of a double apartment. Of the seats described those marked S and S′ opposite each other form one bed by the ordinary extensions or occupy by day the space which may be utilized as a bed at night.

It will be observed that each contiguous pair of seats S′ S are centrally located in the double apartment formed by the walls a, one seat being in one half and the other in the other half of this double apartment. As shown in the drawings, and for the best effect, the apex of the two inclined or oblique walls D D is opposite the partition a', and any suitable movable partition, as a screen, portière, or sliding door, extending from the inner edge of the wall a' outward to the diagonal walls, will divide the double apartments into two single apartments or sections. The particular kind of dividing-partition which I have shown consists of the sliding door f, fitted to be pushed outward into a recess in the wall a'. The obtuse interior angle formed by the inclined walls D D may be divided by the apartment-wall g, forming two acute angles, one in each room, and in these are placed any suitable kind of conveniences for toilet purposes. (Indicated by the basins h.) The apex or line of juncture of the walls D D is preferably rounded, as shown, and from this line the walls incline outwardly or obliquely to the wall of the car in line with the inner edge of the divisional wall a. As, however, the space marked k is of greater utility in the the passage, I prefer to bend the inclined wall, as shown at 1, thus forming recesses k k in the passage, of rectangular shape in cross-section, these being useful to persons passing each other in the car. Each single apartment M is provided in the form of my invention shown in Fig. 1 with a sliding door m. The immovable part of the wall extends from the point 1 to the point 2 and from the point 3 to the point 4, and these may be made of any suitable form of paneling—as, for example, that shown in Fig. 2, in which the ventilating-panel E is opposite the seat S and the doors m slide over the fixed panel-partitions F F.

I have also illustrated how the ends of the car may be subdivided into closets, with a locker and space for the heater. Instead of the fixed partitions and sliding doors, I may use with the same arrangement of seats and beds and with the dividing-walls a and a' a narrower apartment-wall at the apex heretofore described—that is to say, at the point opposite the divisional wall a', and as shown at E in Fig. 4. With this construction I also set a post or narrow apartment-wall I at the point opposite the inner edge of the wall a and connect with it the walls E by portières. At the center of the wall E, I place a partition h, subdividing the interior angle, as heretofore explained; but instead of the sliding door shown in Fig. 1 I may place here a portière also. This arrangement allows the car to be opened thoroughly during the day, but when the portières are closed precisely the same arrangement of room is secured.

I am aware that prior to my invention passenger-cars have been divided longitudinally by a removable diagonal partition, and I do not claim so broadly as to include such a construction.

I claim as my invention—

1. The double apartment composed of communicating sections, said apartment having oblique walls extending from each end to the center and forming projections and dividing it from the passage, substantially as described.

2. A series of double apartments on one side of a car, having oblique walls extending from the ends of the said apartments to the centers and forming projections, combined with a like series on the opposite side, the projection of the passage-walls of said apartments alternating, substantially as described.

3. In combination, the seats S′ S′, facing in opposite directions and divided by a wall, and seats S S, one facing each of the seats S′ S′, and oblique walls separating said seats from the passage and forming a projection opposite the seats S′ S′, all substantially as described.

4. The double compartments having fixed end walls, oblique passage-walls forming a projection at the junction of the sections of said compartments, and a door between said sections.

5. The double apartments having at their permanently closed or narrow ends the parallel walls and the oblique walls extending from said parallel walls forming a central projection, substantially as described.

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

ELBRIDGE G. ALLEN.

Witnesses:
ELIAS E. PRATT,
HURLBUT A. IVES.