

F. W. PARSONS.
 Sleeping-Car.

No. 168,579.

Patented Oct. 11, 1875.

Fig. 1.

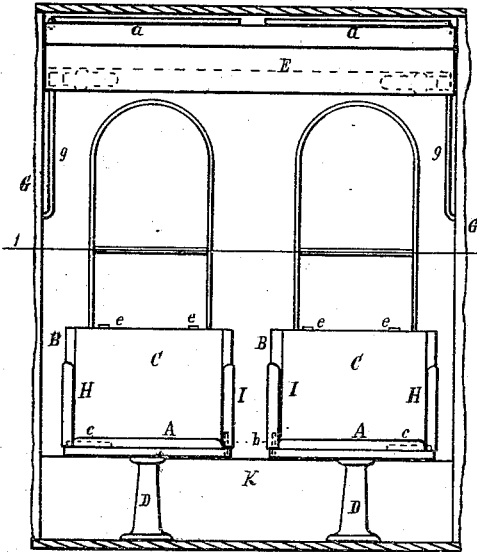


Fig. 2.

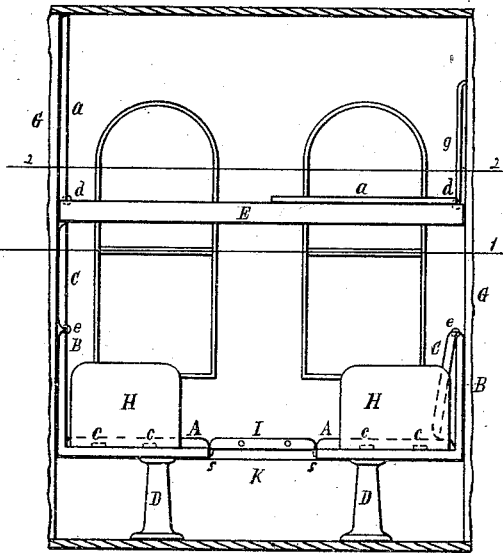


Fig. 3.

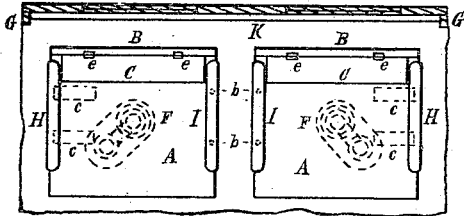


Fig. 4.

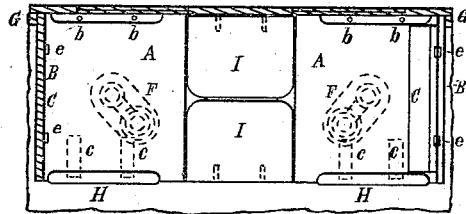


Fig. 5.

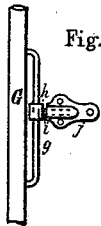


Fig. 7.

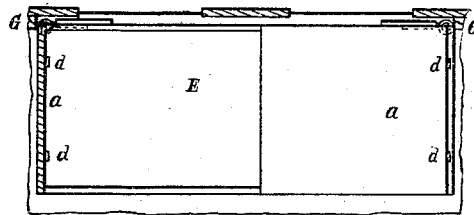
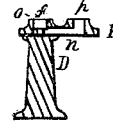


Fig. 6.



Witnesses:

Edw. Dummer
Winslow Warren

Inventor:

Francis W. Parsons

UNITED STATES PATENT OFFICE.

FRANCIS W. PARSONS, OF DEDHAM, MASSACHUSETTS.

IMPROVEMENT IN SLEEPING-CARS.

Specification forming part of Letters Patent No. **168,579**, dated October 11, 1875; application filed February 5, 1875.

To all whom it may concern:

Be it known that I, FRANCIS W. PARSONS, of Dedham, State of Massachusetts, have invented Improvements in Railway Palace-Cars, of which the following is a specification:

My invention relates to the berths, seats, and sectional partitions for railway palace-cars, and the parts connected therewith for fixing and adjusting the same.

The first part of my invention has for its object chairs so constructed and arranged as to form convenient and elegant revolving seats for day use, and that the two chairs of a section may be readily transformed into a bed and partitions between sections for the night. The second part of my invention has for its object upper berths so connected with the car that they may be pushed so far out of the way toward the upper part of the car as to leave the windows unobstructed during the day, and which shall have lids that may be turned up to form partitions between sections.

In the drawings, Figure 1 shows an elevation of so much of a section of a palace-car as serves to illustrate my invention, fronting a person looking toward the side of the car, and exhibiting the condition of the chairs and upper berth during the day. Fig. 2 shows the same section as that of Fig. 1, but with the parts as arranged for night use. Fig. 3 is a section on and a plan of parts below line 1 1 of Fig. 1. Fig. 4 is a section on and a plan of parts below line 1 1 of Fig. 2. Fig. 5 is a view of the hinge for the upper berth and the connection for the same to the car. Fig. 6 is a vertical section of one of the standards for supporting the chairs, and of the plate which rests and slides upon it, and by which it is connected with the seat. Fig. 7 is a section on line 2 2 of Fig. 2, and shows a plan of the upper berth when down.

A A are the seats of the chairs. They are of such size and so located with reference to each other and the car that they may revolve to the extent that may be desired on the standards or supports D D, which are placed nearly central with the seats when used as such. These standards are fixed firmly to the floor of the car, and have at the upper ends pins *f*, which set in plates F, that are fastened firmly to the under sides of the seats. The pin *f* has the upper

end larger, so as to fit in holes *o p* in the plate F. This plate has a slot, *n*, the width of the diameter of the head of pin *f*, but not so deep as the holes *o p*, and connects said holes at their lower ends. The plates F F are so fastened to the bottom of the seats as to set diagonally therewith in the directions shown by the dotted lines in Figs. 3 and 4. The chairs have double backs, one part, B, of each being vertical, and the other part, C, inclined. The two parts of the back of each chair are pivoted to each other at the top by hinges *e e*. The vertical parts B B are rigidly fixed to the seats, so that when the latter are in position to form the bed, as in Figs. 2 and 4, they will form part of partitions between sections, while the inclined parts C C are turned up to complete said partitions as far as the lower bed is concerned, as shown. Those arms I I of the chairs which would be next the side of the car when the chairs are turned round to form bed are made removable, being supported in connection with the chairs by pins *b b*, or other equivalent device. The other or outer arms H H may be connected to the seats by slides, (shown by the dotted lines marked *c*,) if it is desirable to make the bed wider than the chairs. E is the upper berth, which has a connection at each end with the side of the car, of peculiar construction. (Shown in detail in Fig. 5.) G is an upright supporting-stud, joined to the side of the car. On the stud is fastened the vertical rod or guide *g*. On this guide moves the sliding bearing *h*, which has attached to it rigidly the horizontal pin *i*—that is, a pivot about which the plate *j*, having a socket, as shown, may turn. The plate *j* is fastened to the side or on the bottom, near the edge of the berth which is toward the side of the car. The rods *g g* are of the proper length to allow the hinges, with berth, to be pushed up to the desired height for the day, and to drop down to the proper position for the night. *a a* are lids for the upper berth, connected therewith by the hinges at *d* in such a manner that they may be turned up to form partitions between sections, as illustrated in Figs. 2 and 4, where one lid is thus turned up. The upper berth is otherwise supported by well-known suitable devices not necessary here to explain.

The transformation of chairs and upper berth from the positions of the day to those for the night is as follows: The upper berth, which, having been pushed up to its day position, is more or less inclined, is brought to a level position by pulling the berth in such a manner as to cause the plates *j* to turn on the pivots *i*, and then drawing the berth down to the proper height, causing the bearings *h* to slide upon the rods or guides *g g*. The lids *a a* are then turned up to form the upper partitions. The removable arms *I I* of the chairs are taken off, and the chairs swung round on the standards, so that the two of a section will face each other, the pins *f f* acting as pivots in the holes *o o* of plates *F F*. The chairs are then raised slightly, so that the heads of the pins *f f* will be in the slots *n n* and pushed diagonally toward the side of the car, and away from each other, so that they will set in the corners formed by the side of the car and the right and left extreme limits of the section. The vertical backs *B B* of two adjacent chairs in two adjoining sections will be brought nearly or quite together. The pins *f f* will slide along the slots *n n* and pass into holes *p p*, fixing the chairs firmly in position. The standards will now be nearer the outer ends as well as the front of the seats, but the latter will be further supported by resting on the sill *K* of the car. The arms removed are placed between the seats, resting on ledges *s s*, or their equivalents, and completing the bed. The inclined backs are then turned up to complete the lower partitions. The outer arms *H H* may be drawn out a short distance, if desired, to widen the bed by the slides *c c*, as aforesaid. The bedding for the lower and upper beds is kept during the day in and above the upper berth.

By my invention the upper berth is pushed up higher than is now the custom, and the windows are left unobstructed, making the car

lighter, better ventilated, and more attractive for a day car.

In my arrangement of the chairs, causing them to revolve on pivots, passengers are able to ride in any position which they may desire, and all associations which attach to a sleeping-car, where one-half of the seats face toward the rear end, are thus removed; also, the car being equally adapted for day and night service, railway companies will be relieved from the necessity of supplying parlor or drawing-room cars, as my invention serves the two purposes equally well.

I claim as my invention—

1. In a railway-car, the combination of two adjacent pivoted seats, *A A*, with supports *D D*, and capable of sliding diagonally on the supports *D D*, substantially as and for the purpose set forth.

2. The upper berth *E*, in combination with guide *g*, sliding bearing *h*, and pivot *i*, substantially as and for the purpose set forth.

3. The combination of seat *A*, plate *F*, and standard *D*, substantially as set forth.

4. The combination of the seat *A*, vertical back *B*, and inclined back *C*, the inclined back *C* being hinged to the top of back *B*, substantially as and for the purpose set forth.

5. The combination of the seat *A*, removable arm *I*, and fixed arm *H*, substantially as described, and the arm *I* to be removed and used to form part of bed, as set forth, and for the purpose set forth.

6. The combination of plate *j*, having a socket for pivot-pin *i*, sliding bearing *h*, and guide *g*, substantially as and for the purpose set forth.

7. In a car, the upper berth *E*, having lids *a a* hinged to the back *E* for forming partitions, substantially as set forth.

FRANCIS W. PARSONS.

Witnesses:

EDW. DUMMER,
WINSLOW WARREN.