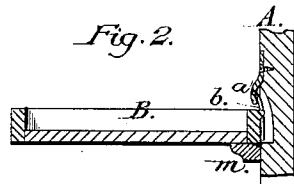
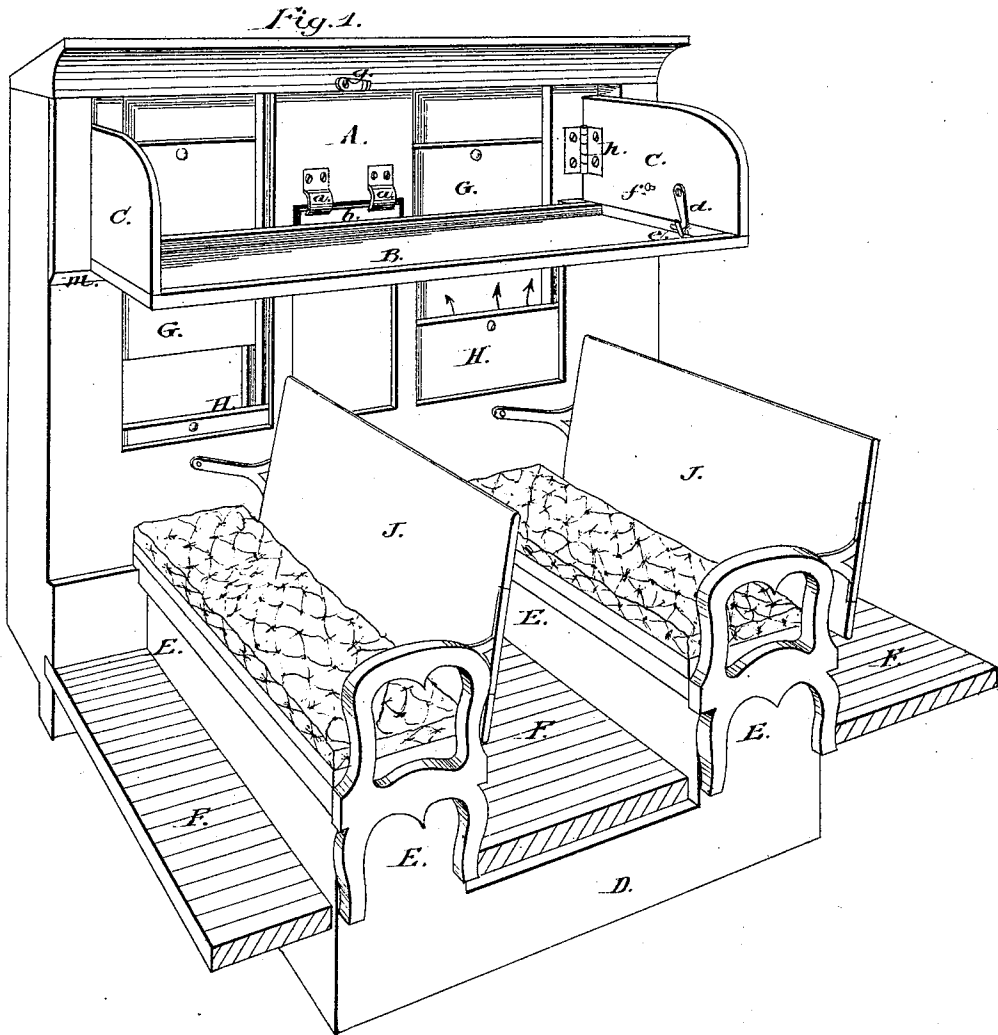


C. E. LUCAS.  
Sleeping-Car.

No. 166,792.

Patented Aug. 17, 1875.



WITNESSES  
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By

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# UNITED STATES PATENT OFFICE.

CHRISTIAN E. LUCAS, OF ATLANTA, GEORGIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO JOHN F. DIVINE, OF WILMINGTON, NORTH CAROLINA.

## IMPROVEMENT IN SLEEPING-CARS.

Specification forming part of Letters Patent No. **166,792**, dated August 17, 1875; application filed March 25, 1875.

*To all whom it may concern:*

Be it known that I, CHRISTIAN E. LUCAS, of Atlanta, in the State of Georgia, have invented certain Improvements in Sleeping-Cars; and I do hereby declare the following to be a full and correct description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a section of a sleeping-car having my improvements. Fig. 2 is a transverse section of the upper berth and its attachments. Fig. 3 is a transverse section of my improved ventilating car-window.

The same part is indicated by the same letter of reference wherever it occurs.

My invention consists in improvements in the details of construction of the sleeping-car patented by me March 23, 1875, No. 161,249. These improvements relate to the mode of hanging, supporting, and dividing the upper berths, and to the construction of the bedding-receptacle. In my patent referred to the upper berth was hung to the side of the car, and partially supported by triangular pieces of leather, or suitable flexible material, and the berth was not removable, but could only be slightly raised from the molding on which its inner side rested. In my present invention the upper berth is supported on a molding, as in the prior patent, but is attached to the side of the car by catches or slip-hinges, which allow of its easy removal. Moreover, the berths are divided by partitions or leaves made of wood, hinged to the side of the car, and folding in against the wall of the car behind the berths when put up in position to form a day car, and to these partitions the outer edges of the berths are hooked for support when the berths are ready for use.

The bedding-receptacle in my patent above referred to consisted of three boxes, two under the seats, and a long box connecting them located beneath the floor of the car. In my present application I make this receptacle in one continuous box, turned up at the ends, without break from end to end, and having no openings except those covered by the cushions of the car-seats.

In the accompanying drawings, A marks

the outside framing of the car. In sleeping-cars, as ordinarily made prior to my patent of March 23, 1875, there is, in addition to the outside framing, an inside paneling, to which the upper berth is attached, forming an independent structure projecting into and heavily weighting the upper part of the car. In my present improved sleeper, as in my prior patent, I dispense with the inner paneling, or rather make it form the upper berth B, which, when folded up into place, lies against the studding of the car, to which the outer walls are attached. This berth B is finished on its under side, in the same manner as the ordinary panel-work of a day car, and when folded up gives the car the appearance of the common day car, as it fits snugly, and in a vertical position, in a recess prepared in the upper part of the car-side to receive it. It is held up by means of one or more buttons, *g*. To the middle of the lower edge of the berth B is attached a projecting metallic plate, *b*, which, when the berth is let down, engages with two catches, *a a*, attached to the side frame of the car, so as to hold the berth securely in position when in use. Except when let down, the berth can readily be entirely detached from the side of the car. A molding, *m*, serves to support the inner edge of the berth when let down, as shown in Fig. 2. At either end of berth B are attached, by hinges *h*, to the studding of the car, the vertical leaves C C, which can either fold in against the side of the car or be opened out at right angles to it, as required. When the berth B is let down for use, as shown in Fig. 1, these leaves C are opened and form the head and foot boards of the berth. They are provided with hooks *d*, which enter staples *e*, attached to the berth, and support its outer edge, as shown. When the car is used for day travel, the leaves C are folded in against the studding, and the berth B is raised up and fastened in the recess provided for its reception, its lower edge resting upon the molding *m*. I use seats of ordinary form, having reversible backs J, so that they can be made to face either way, like the seats of a common day car. They can be converted into a berth for sleeping purposes in any mode that may be preferred, this forming no part of

my present invention. The cushions I form the covers of the ends E E of a long box, D, extending below the floor F of the car from one seat to the other, as shown. This box D and its upright ends form one continuous compartment for the reception of the bedding used upon the berths. I make the box of sheet metal, preferably of galvanized iron, and by making it in one continuous compartment, with no openings except those covered by the seat cushions or bottoms, I effectually exclude dust and dirt, the entrance of which has heretofore been the chief objection to the packing of the bedding below the floor of the car.

I claim and desire to secure—

1. The berth B, forming the inner paneling of the car, supported upon the molding *m*, and secured to the side of the car by the

catches *a* and plate *b*, in the manner set forth.

2. In combination with the berth B, the folding leaves C C, hinged to the side of the car, and forming, when open, the head and foot boards of the berth, as well as a part of its support, as described.

3. The bedding-receptacle E E D, consisting of one continuous metallic chamber, partly below the floor of the car, with ends turned up through the floor under the car-seats and covered by the seat-cushions, as shown and described.

The above specification of my said invention signed and witnessed, at Washington, this 6th day of February, A. D. 1875.

CHRISTIAN E. LUCAS.

Witnesses:

W. P. BELL,

CHAS. F. STANSBURY.