

J. WOODRUFF.
Sleeping-Cars.

No. 147,538.

Patented Feb. 17, 1874.

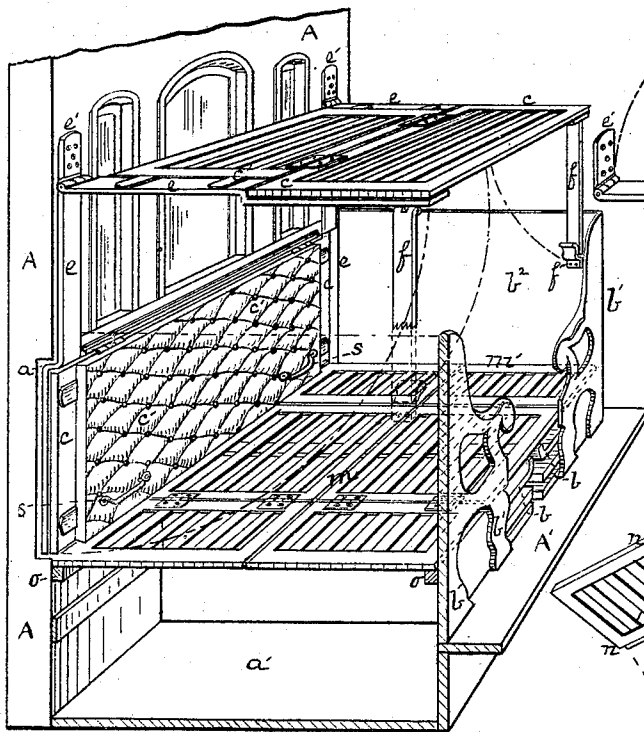


Fig. 2.

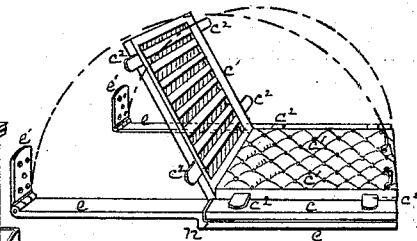


Fig. 3.

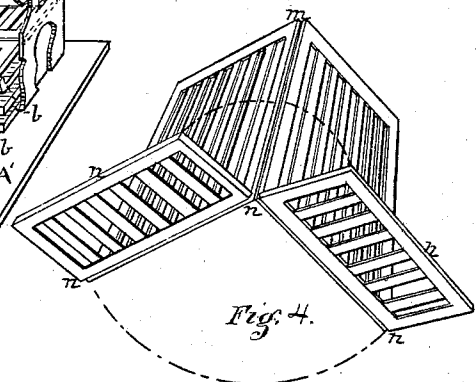


Fig. 4.

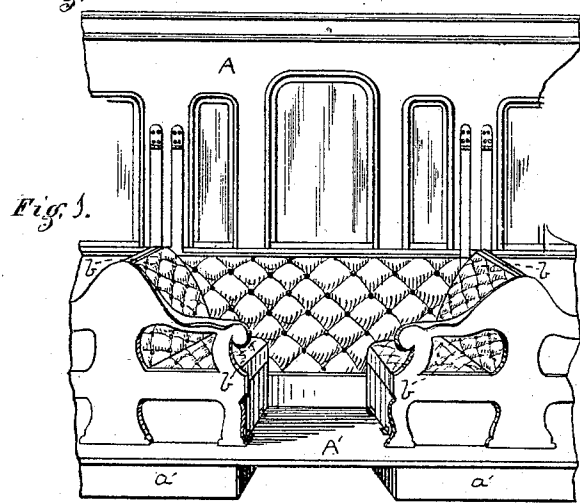


Fig. 5.

Witnesses } James D. Kay
 Fred. Standish } Inventor Jonah Woodruff,
 by Bakewell, Christy & Herr,
 his Attys.

UNITED STATES PATENT OFFICE.

JONAH WOODRUFF, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN SLEEPING-CARS.

Specification forming part of Letters Patent No. 147,538, dated February 17, 1874; application filed October 14, 1873.

CASE B.

To all whom it may concern:

Be it known that I, JONAH WOODRUFF, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Sleeping-Cars; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 represents a section of a sleeping-car embracing my improvement, but with the berth devices in position for day service; and Fig. 2 is a view, in perspective, of the side or body of the section; also of the floor of the car, and showing, in connection therewith, the devices which enter into my present improvement; and Fig. 3 is a detached view, in perspective, of the upper-berth platform; and Fig. 4, a like view of the lower-berth platform.

Like letters of reference indicate like parts in each.

My present invention relates to the class of sleeping-cars more particularly described in patent granted to me July 12, 1870, No. 105,288; and the nature of it consists in the manner of combining the upper-berth platform with the car-body, and recess in which it is stored for day service, and in the manner of supporting it when used for night service.

To enable others skilled in the art to make and use my improvement, I will proceed to describe its construction and mode of operation.

The side or body of the car *A*, the floor *A'*, the recess *a* in the side of the car, under the windows and between the partitions, are made as described in the patent above named, as also the recess *a'*, under the seats. The seats and seat-backs *b* are made to fold down under the floor, leaving the end frames *b'* and the partitions *b''* for use in connection with the making up of the berths. In each recess *a* there is a skeleton frame, *c c'*, having a joint longitudinally along its middle part, so that the two halves may be folded together, substantially as described in the patent above named. The outer face of the outer fold is upholstered, as shown. One-half of this folding-berth platform is fastened to the swinging arms *e*, which

arms constitute, mechanically, the one-half of a hinged joint, the other half, *e'*, being attached or fastened to the side of the car-body, at the proper elevation for a berth-platform, and the strap-arms *e* being long enough to admit of the berth-platform, which is fastened at the opposite ends to be swung down and placed in the recess *a*.

To fit up the berths for night service, the porter, after folding the seats down onto the floor, takes hold of the brackets *s*, swings the folded upper-berth platform out of its recess *a*, and upward, as indicated by dotted lines in Fig. 2, till he brings it to a horizontal position, and fixes it in that position by means of hinged legs *f*, (which, when not in use, are folded up against the under side of the berth-platform, and held there by means of springs or other suitable device,) such legs resting on steps or brackets *f'*, which are fastened to the partitions *b''*. He then folds over or back the opposite half of the berth-platform, as indicated in Fig. 3, (in which figure this folding half is represented folded onto the other half and partially unfolded,) so that, by means of the lugs *c''*, it shall rest upon the strap-arms *e*, and then being in a horizontal position, shall form the other half of the upper-berth platform. The berth or bed is then made up thereon, in the usual way. By reversing this operation, the upper-berth platform is placed back into the recess *a*, in fitting up the car for day service. That the upper-berth platform may the better enter the recess *a*, the arms *e* should be bent, as at *n'*.

For a lower-berth platform, I make use of a skeleton frame-work, such as has been already described in the patent above referred to, except that it is not only jointed longitudinally at its middle part, but also the two ends of each half are jointed, as indicated at *n n* in Fig. 4, so that thereby the length and width of the lower-berth platform *m* shall be so reduced when folded together, that it may be conveniently stored away in the recess *a'*, and, if so preferred, both ends may be folded in in that way; or only one end, as shown in the drawings, and the other end be made up of a separate detached frame, *m'*, which may either

be left in position under the seat, with the seat resting thereon when the car is fitted up for day service, or may, in like manner, be stored away in the recess below, if jointed midway between its ends. Preferably, the part *m'* is fixed in position, and the removable part *m n* is supported by any desired number or arrangement of projecting lugs or side rails *o*, so as to constitute a sufficiently firm berth-platform.

While I have described this removable part as being hinged, the hinges may be omitted, and the different parts, suitably supported from below, may be placed in position so as to constitute the platform desired, and, in the manner described, be removed and stowed away in the recesses *B*, when the car is to be used for day service.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A folding upper-berth platform, fastened to the side of the car, to swing into and out of the recess *a*, in combination with such recess, substantially as described.

2. The combination of the upper folding-berth platform, the strap-arms which carry it, and the legs which support it from below, substantially as described.

In testimony whereof, I, the said JONAH WOODRUFF, have hereunto set my hand.

JONAH WOODRUFF.

Witnesses:

DANIEL S. ROBERTSON,
AUGUSTUS TRUMP.