2 Sheets—Sheet 1.

B. F. MANIER.

Sleeping-Car.

No. 201,186. Patented March 12, 1878.

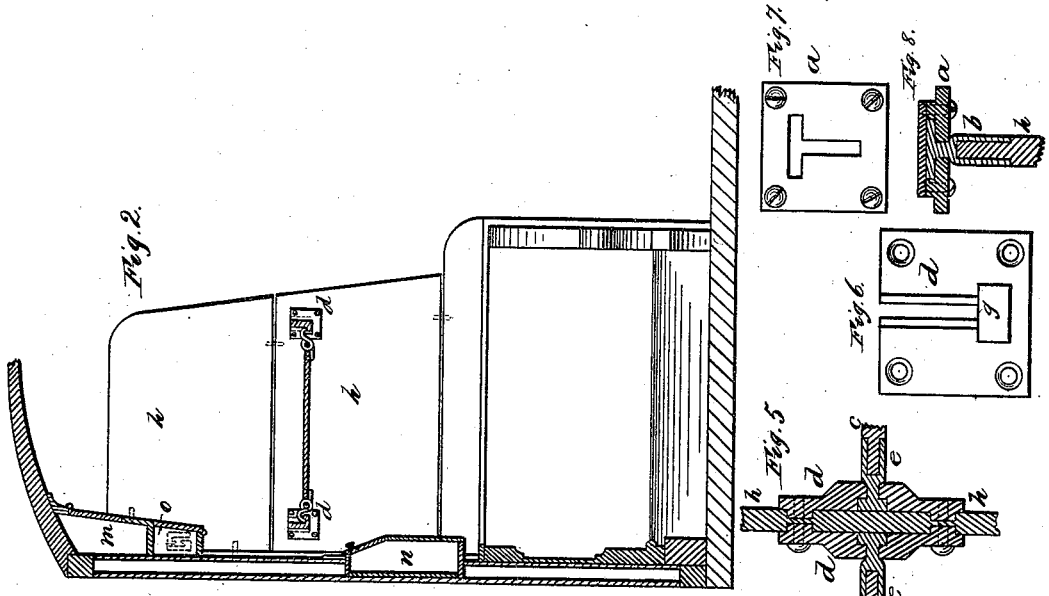

Fig. 2.

Fig. 4. Fig. 6. Fig. 5.

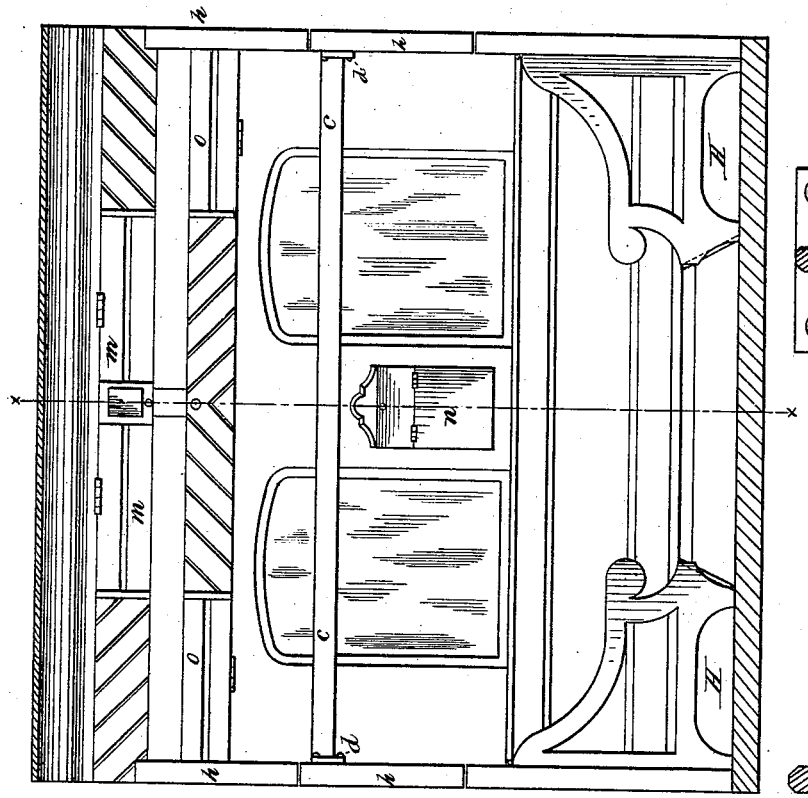

Fig. 1.

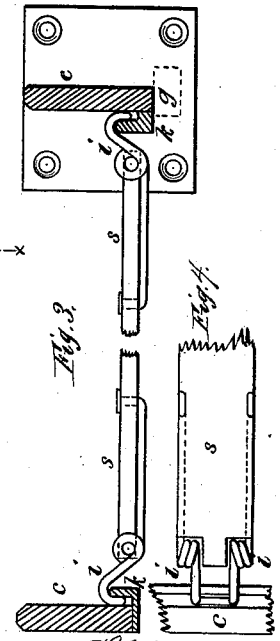

Fig. 3. Fig. 7.

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2 Sheets—Sheet 2.

B. F. MANIER.

Sleeping-Car.

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Fig. 9.

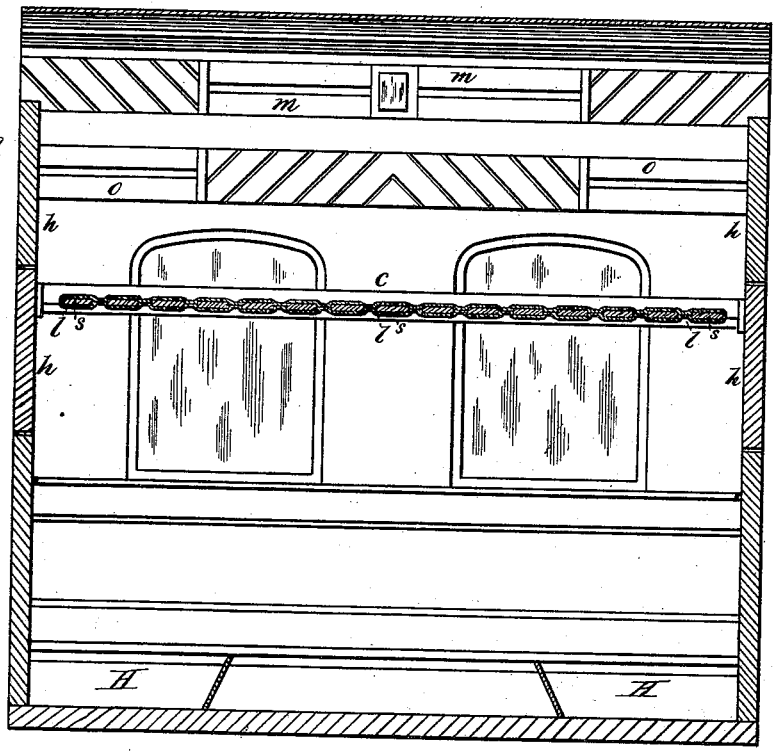
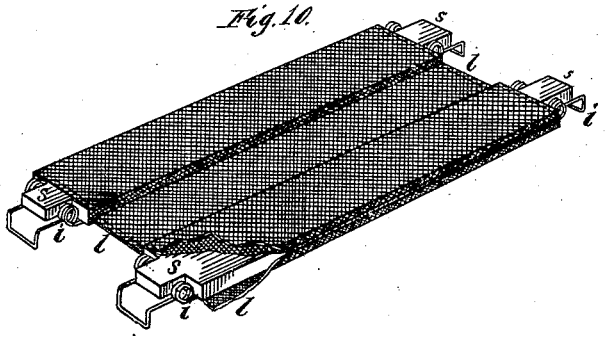


Fig. 10.



Attest:
Chas. H. Searle.
W. E. Shaffer

B. F. Manier,
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UNITED STATES PATENT OFFICE.

BENJAMIN F. MANIER, OF GREEN ISLAND, NEW YORK.

IMPROVEMENT IN SLEEPING-CARS.

Specification forming part of Letters Patent No. **201,186**, dated March 12, 1878; application filed January 18, 1878.

To all whom it may concern:

Be it known that I, BENJAMIN F. MANIER, of Green Island, county of Albany, and State of New York, have invented certain new and useful Improvements in Sleeping-Cars, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 is a sectional elevation of so much of a car as is necessary to show the location and relative arrangements of my several improvements. Fig. 2 is a section upon a plane perpendicular to that of Fig. 1, and passing through line *x x*. Fig. 3 is an enlarged sectional view, and Fig. 4 a partial plan, showing the method of sustaining the bed-bottom of the upper berth. Fig. 5 is a horizontal section through the upper bed-rail supports, showing their relative arrangement upon opposite sides of the removable partitions; and Fig. 6, a front elevation of one of said supports. Fig. 7 is a front elevation, and Fig. 8 a horizontal section, showing one method which may be adopted for connecting the ends of the removable partitions with the side of the car. Fig. 9 is a longitudinal section through the axis of the upper berth. Fig. 10 is a perspective view of a portion of the upper bed-bottom, exhibiting the method adopted of covering or incasing the slats with cloth, in order that the whole bed-bottom may be conveniently folded up and packed away.

Like letters in all the figures indicate corresponding parts.

As most commonly constructed, the upper berths of sleeping-cars are clumsy fixtures permanently connected with the upper part of the car-side. They add considerable weight to the car-top, obstruct ventilation when the car is used as a day-car, and make an ungainly object precisely where it is not wanted or needed. The partitions between berths are also permanent and inconvenient fixtures, as heretofore made, adding materially to the expense of construction.

To overcome these serious objections, as well as to add to the convenience of manipulation and reduce the primary cost, is the principal object of my invention, which consists, essentially, in certain details of construction and novel assemblages of parts, as will be hereinafter first fully described, and then pointed out in the claims.

The partition *h h*, which rises vertically between any two compartments, is made in two parts, the lower one of which is connected with the car-seat back by dowels or any other convenient appliances. The two parts are connected with each other by similar means, and directly with the side of the car by means of T-shaped irons *b* and correspondingly-slotted plates *a*, which method of uniting them admits of their ready removal, and insures their stability when in position for night use.

The upper bed-rails *c c* are secured to partitions *h h* by means similar to those employed for connecting the said partitions with the car-side. The slotted plates fall upon opposite sides of the partition, as at *d d*, Figs. 5 and 6, and the bed-rails *c c* are provided with the corresponding angle-irons *e e*. The plates *d* carry a rubber or other elastic cushion, *g*, upon which the bed-rails are supported to relieve them from the jar and shock of the moving car.

The mattress for the rails *c c* is made by sewing slats *s s* into or between pieces of cloth, in order that it may be rolled up and packed away as one piece. The ends of the slats are supplied with wire springs, coiled and hooked, as plainly shown at *i i*, Figs. 2, 3, 4, and 10. The extremities of these springs are made to engage with an angle-iron or wooden ledge, *k k*, extending the length of the rail *c*, and they afford the requisite elasticity or spring for the mattress, at the same time sustaining said mattress in its proper position, and permitting its ready removal when desired.

When not in use, the bed-rails, mattress, and partitions are removed entirely. The partitions, bedding, and mattress are packed in a box or receptacle, H, formed underneath the car-seat. In packing the mattress, the cloth envelope *l* is found extremely serviceable, inasmuch as it permits the several slats thereof to be compactly rolled without detaching any one of them, and thereby adds greatly to the convenience of relocating them. The bed-rails *c* are deposited in a receptacle, *o*, extending the length of the berth, and provided with a suitable hinged door. There then remains no appearance of any bedding, or of any obstruction not seen in the ordinary day-car.

The sleeping-car, as at present constructed, has no receptacle under the control of the passenger wherein valuables and other articles

may be safely deposited. To supply this want, I provide a safe for the upper berth, as at *m*, Figs. 1, 2, and 9, which should have a suitable door to exclude dust, to which door any desirable form of lock may be applied. Being located immediately over the space allotted for the reception of the bed-rails, opportunity is afforded to make the front face join with the top of the car, and thus utilize and conceal the otherwise unoccupied space.

For the lower berth I place a safe, *n*, within a recess cut in the front facing of the car-side, between the two windows. This is made detachable, and may be constructed of wood or of metal, as found most convenient. The keys of the two receptacles or safes should, of course, be held by the passengers who occupy the berths corresponding therewith.

As thus constructed and arranged the car is simple in construction, convenient to convert from a day to a night car, and admirably answers the several purposes of the invention, as previously stated.

Having thus fully described my invention, I will add that I am fully aware of the present styles of sleeping-cars, wherein a stationary partition is employed, which is a natural consequence of the other and objectionable arrangements of the interior fittings. To this form of car I desire it understood that I lay no claim; but

What I do claim as new, and desire to secure by Letters Patent, is—

1. In combination with the removable partitions *h h*, having the slotted plates *d d*, the detachable bed-rails *c c*, extending the entire length of the berth, and provided with the end pieces *e e* and bottom rail *k*, for supporting the mattress, substantially as shown and described.

2. In combination with the removable rails *c c*, the elastic pad *g*, substantially as and for the purposes set forth.

3. In combination with the several slats adapted to be supported upon the bed-rails of the upper berth in a sleeping-car, the hooked springs *i i*, located at each end of said slats, substantially as shown and described.

4. In combination with the bed-rails of the upper berth in a sleeping-car, the herein-described folding mattress, composed of a series of slats having hooks or other means for supporting them upon the bed-rails, the said slats being enveloped in a flexible cloth covering, substantially as and for the purposes explained.

5. In a sleeping-car, the receptacle, safe, or pocket *m*, located between the chamber which receives the detachable bed-rails and the roof of the car, substantially as shown and described.

6. In a sleeping-car, the removable safe or pocket *n*, located within a recess cut in the car-casing between the upper and lower berths and between the windows, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of two witnesses.

BENJAMIN F. MANIER.

Witnesses:

G. P. FIELD,

JOHN M. DEAL.