J. L. MITCHELL.

CAR-SEATS.

No. 188,167. Patented March 6, 1877.

Fig. 1.

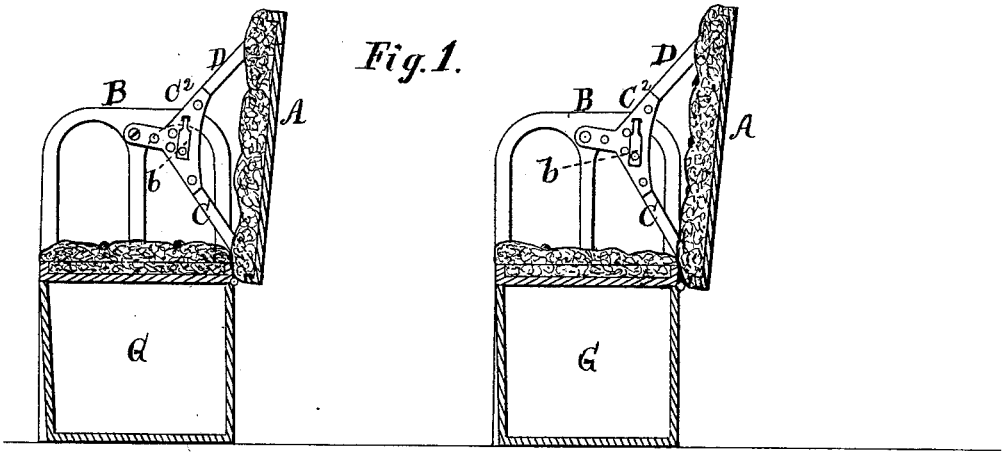


Fig. 2.

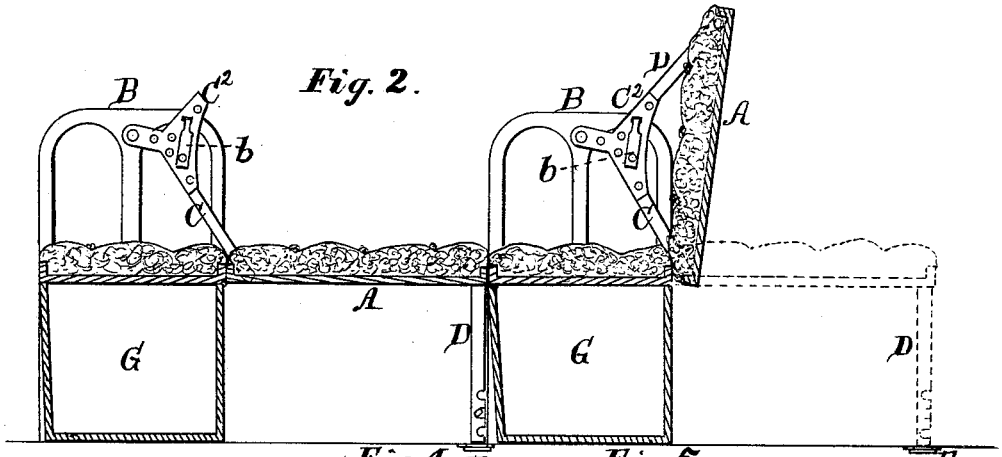


Fig. 3.

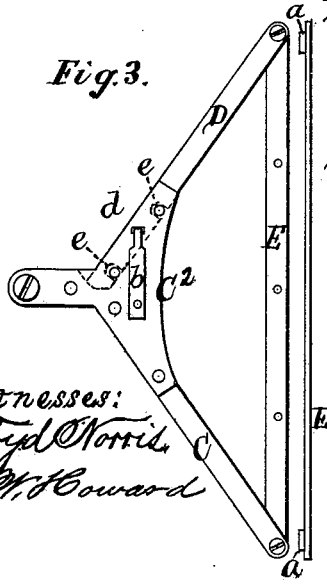


Fig. 4.

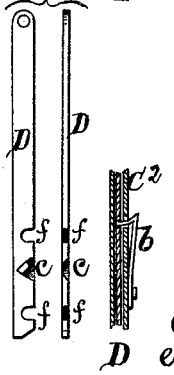
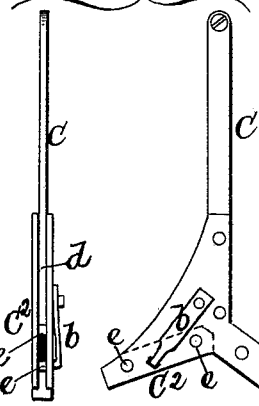


Fig. 5.



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Atty's

UNITED STATES PATENT OFFICE.

JAMES L. MITCHELL, OF PUEBLO, COLORADO.

IMPROVEMENT IN CAR-SEATS.

Specification forming part of Letters Patent No. **188,167**, dated March 6, 1877; application filed January 16, 1877.

To all whom it may concern:

Be it known that I, JAMES L. MITCHELL, of Pueblo, in the county of Pueblo and State of Colorado, have invented certain new and useful Improvements in Convertible Seats for Sleeping-Cars, of which the following is a specification:

My object is to improve that class of railway-car seats in which the seat-backs are made, in connection with the seat, to form, when dropped down into horizontal positions, continuous bed bottoms or lower berths for night-travel; and my improvement consists in combining with the seat-backs and their reversing-arms detachable and reversing braces for the seat-backs, whereby the braces can be detached from the reversing-arms, and swung over into vertical positions upon the car-floor, to form leg-supports for the outer edge of the seat-backs when dropped down into horizontal positions. For this purpose the supporting-braces are secured in sockets in angular extensions of the reversing-arms, and fastened by spring-catches, the receiving-sockets being provided with interior lugs or pins, over which notches in the edges of the supporting-braces fit, to resist the strain upon the chair-backs when the seats are used for day-travel.

By this construction the chair-backs, when turned down to form couches, are securely and firmly supported directly upon the floor, and in readjusting the backs to form chairs, the braces are easily and quickly turned up over and locked into their sockets in the reversing-arms, so that the detachable braces are made reversible, to serve as legs for the bed-bottom, and as braces for the reversing-arms of the seat-back, by which arrangement the latter, when used to make the bed-bottom, has vertical floor-supports for its outer edge, while its inner edge is suspended by the reversing-arms, thus leaving the bed free of access between the chair-arms, and giving it a safe support.

In the accompanying drawings, Figure 1 represents a vertical section of two car-chairs as arranged for day-travel, and embracing my invention; Fig. 2, a similar view, the chair-backs being turned down to form the lower berths for night-travel; Fig. 3, an elevation of the pivoted braces, showing the manner of securing the detachable brace; Fig. 4, an elevation and edge view of the suspending-brace; and Fig. 5 side and edge views of the detachable brace.

The chair-back A is made reversible by pivoting it to the chair-arms B, in the usual manner. It is hung by diagonal braces C D, which form, with the back, triangular end frames. These braces are pivoted to a plate, E, Fig. 3, at each end of the seat-back, at the corners, by strong screw-bolts passing through sleeves *a* projecting from the end plates E. One of these diagonal braces, C, is pivoted to each of the chair-arms B, and these pivots form the reversing-bearings for the back. These braces C are likewise provided with a socketed angular extension, C^2, into which the other braces, D, are made to close, and detachably secured therein by spring-catches *b*, fastened to the extensions C^2, so as to pass through them and enter openings *c*, Fig. 4, in the braces D, thereby uniting the braces as one frame, the sockets *d* of the extensions forming angles coincident with the braces D when the latter are secured in place, and thereby support the seat-back, and allow it to be reversed when required, as shown in Fig. 3.

To resist the drawing-strain upon the braces D by the back, the socketed extensions C^2 *d* are provided with interior lugs or pins *e e*, to receive notches *f f* formed in the braces D when the latter are closed into the sockets *d*, making a very firm connection. The openings *c* in the braces D are beveled, as shown in Fig. 4, to allow the spring-catches *b* to enter freely therein.

This construction affords a firm support for the seat-back for day-travel, and by having the braces D detachable they can be raised out from their socket-fastenings and turned over with the seat-back, and allow it to be lowered into a horizontal position between the seats, and supported by the braces D, which, entering socket-plates F in the floor, serve as legs to sustain the outer edge of the back, and thus form a continuation of the chair-seat for a lower couch for night-travel, the inner edge of the back being held in position with the seat by means of the braces C, which then form suspension-arms, as shown in Fig. 2.

By this arrangement the seat-back braces are separated, to serve the separate functions of legs and suspension-arms in adapting the seat-back for a bed.

By adjusting the seat and back cushions to the proper width, the car-chairs and their backs will, by my invention, form a lower berth-couch for two persons, and may be used in what are known as day-coaches, as well as in sleeping-cars.

In day-travel the bedding can be stowed away in a box, G, beneath the seats.

To restore the back to its upright position, lift up the outer edge and bring the braces D over into the sockets *d* of the extensions C^2 of the braces C, where they are at once locked by the spring-catches. The detachable braces open and close with their sockets like the blade of a pen-knife.

By this arrangement of the detachable and reversing brace-supports the front of the bed is left free for getting in and out between the chairs, which is an important advantage.

I claim—

1. The detachable and reversible braces D, in combination with the chair-back A and the reversing-arms C, whereby the detachable braces serve as leg-supports for the outer edge of the seat-back, when turned down to form the lower couch.

2. The combination, with the detachable and reversible braces D of the angular socketed extensions C^2 *d*, of the reversing braces C and the spring-catches *b*, as and for the purpose herein set forth.

3. The angular socketed extensions C^2 of the reversing braces C, provided with interior lugs or pins *e e*, in combination with the interlocking-notches *f f* of the detachable braces, and the spring-catches *b*, as and for the purpose herein set forth.

4. The combination, with the braces C D, of the seat-back plates E and their bearing-sleeves *a*, for said braces, as and for the purpose herein set forth.

5. The combination, with the detachable and reversible braces D and the seat-backs, of the floor-socketed plates F, as and for the purpose herein set forth.

In testimony whereof I have affixed my signature in the presence of two witnesses.

JAMES L. MITCHELL.

Witnesses:

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