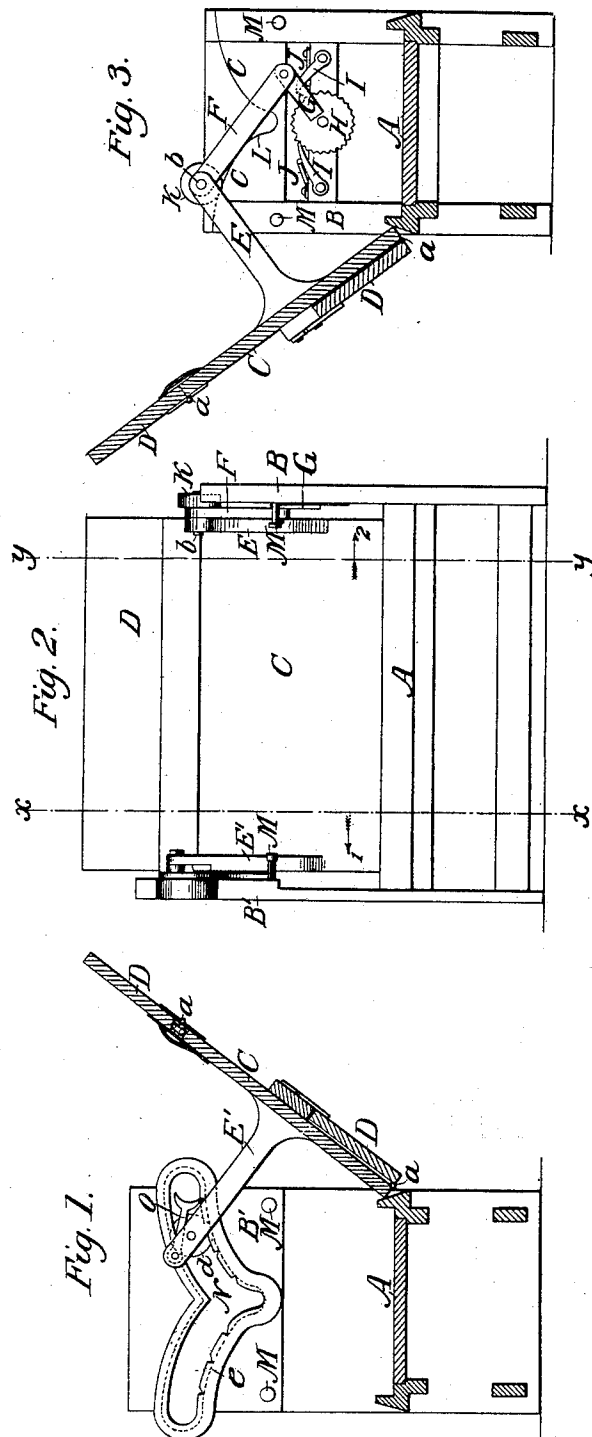


J. S. DENMAN.
CAR SEAT.

No. 19,079.

Patented Jan. 12, 1858.



UNITED STATES PATENT OFFICE.

JACOB S. DENMAN, OF BROOKLYN, NEW YORK.

RAILROAD-CAR SEAT.

Specification of Letters Patent No. 19,079, dated January 12, 1858.

To all whom it may concern:

Be it known that I, JACOB S. DENMAN, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Adjustable Back for Railroad-Car Seats; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a transverse vertical section of a car seat, with my improvement applied to it, taken in the line (*x*) (*x*) and looking in the direction of arrow 1, see Fig. 2. Fig. 2, is a front view of ditto. Fig. 3, is a transverse vertical section of ditto, taken in the line (*y*) (*y*) Fig. 2, and looking in the direction indicated by arrow 2.

Similar letters of reference indicate corresponding parts in the several figures.

This invention consists in so connecting the back of the seat to its sides, that the back is not only rendered reversible but also rendered capable of being adjusted at any angle or degree of inclination, so that the seat may be readily converted from a day to a night seat and vice-versa.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A represents the seat and B, B', represent the two sides which project a suitable distance above the seat, the side B', being at the side of the car, and the side B, at the passageway between the two rows of seats.

C, represents the back of the seat. This back is provided at both ends with an extension flap D. These flaps are hinged to the back as shown at (*a*) and may be folded over and secured on its outer side by buttons, or, unfolded and secured in line with the back C, to increase its height, either flap being unfolded according to which side of the seat the back is placed, the top flap of course being only unfolded. To the ends of the back C, arms E, E', are attached, one at each end. These arms project at right angles from the back C. The outer end of arm E is jointed to the upper end of a bar F, the lower end of said bar being jointed to an arm G, which is attached radially to a ratchet H, secured to the side B. To the side B, and at each side of the ratchet H, a pawl I, is attached, either pawl being secured in an upward posi-

tion free from the ratchet when desired by means of hooks J, or equivalent devices attached to the side B, one near each pawl.

The pin (*b*) which forms the joint connection of the arm E, and bar F, has a roller K, fitted on it, and this roller rests and works on a ledge L, on the inner surface of the side B. The face or tread of this ledge L, is of curved form, as shown clearly in Fig. 3, being formed of two curves (*c*) (*c*) in reverse positions, one curve serving for the roller K, to work or pass over as the back C, is turned to one side of the seat, and the other curve serving as a bearing for the roller as the seat is turned over to the opposite side.

M, M, are rests for the arms E, E', when the back C, is in an upright position. These rests are attached to both sides B, B', of the seat.

The outer end of the arm E', has a roller (*d*) attached to it, and this roller is fitted and works in a curved way or guide N, the form of which corresponds precisely with the tread or face of the ledge L, see Fig. 1. A pawl O, is also attached to the outer end of the arm E', said pawl catches into notches (*e*) in the lower edge of the guide N.

From the above description it will be seen that the back C, may be secured in a vertical or in an inclined position, and more or less inclined as desired. When the back is in an upright or vertical position the roller K, will be between the lower ends of the two concaves (*c*) (*c*) of the ledge L. As the back is turned the ratchet H, is rotated, the roller R, passing over either of the curves (*c*) which are parts of circles the sides of the seat A, being in line with the centers of said circles. The back C, is retained at any desired point by the proper pawl I.

The roller (*d*) on the arm E', by being fitted in the way or guide N, serves as a guide to the inner end of the back C, keeping it in proper position.

By this improvement the seat may be readily converted from a day to a night seat and vice-versa. The back of course being considerably inclined, and a flap unfolded when used as a night seat, and the flaps folded and the back placed in nearly a vertical position when used as a day seat. This improvement may be applied to the ordinary car seats in use at a moderate expense.

Having thus described my invention what I claim as new and desire to secure by Letters Patent, is—

5 Attaching the back C, at one end, to the side B, of the seat by means of the arm E, bar F, with roller K attached, arm G, and ratchet H, arranged substantially as shown and used in connection with the curved ledge L. and pawls I, the opposite end of the

back being connected to the side B', and 10 properly guided by the arm E', roller (d) and guide N, or their equivalents, for the purpose set forth.

JACOB S. DENMAN.

Witnesses:

MICH HUGHES,
J. D. BUCKLEY.