

(No Model.)

F. H. HENRY.  
CAR SEAT.

No. 580,976.

Patented Apr. 20, 1897.

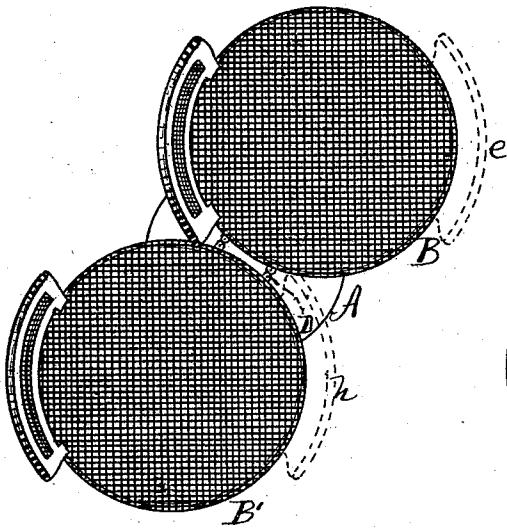


Fig. 1.

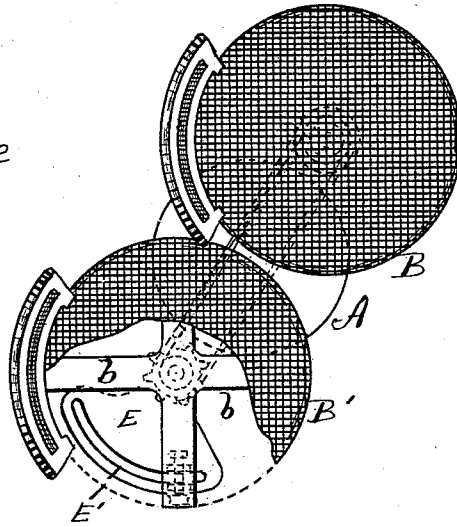


Fig. 2.

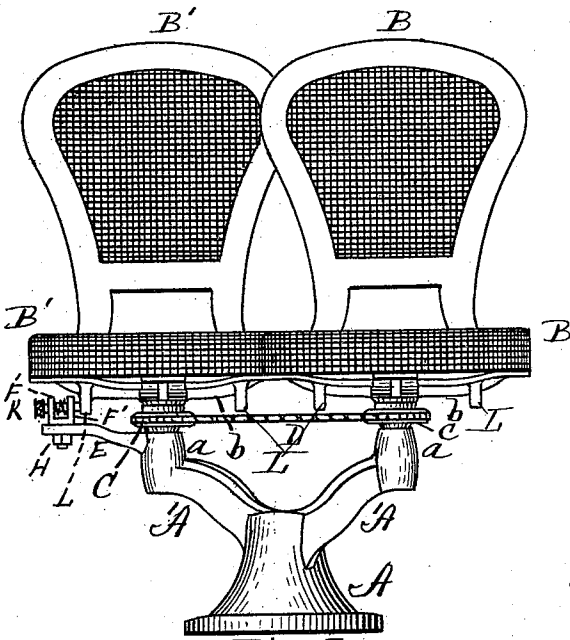


Fig. 3.

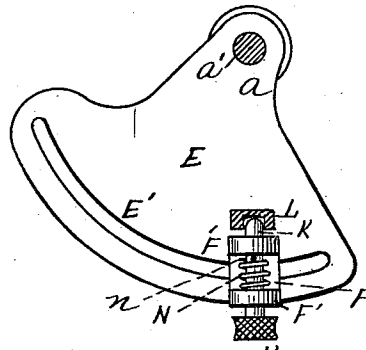


Fig. 4.

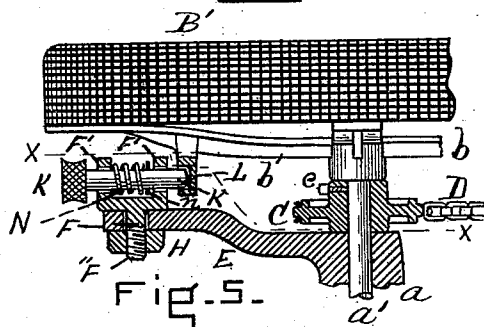


Fig. 5.

WITNESSES  
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# UNITED STATES PATENT OFFICE.

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## CAR-SEAT.

SPECIFICATION forming part of Letters Patent No. 580,976, dated April 20, 1897.

Application filed November 20, 1895. Serial No. 569,541. (No model.)

To all whom it may concern:

Be it known that I, FRED H. HENRY, a citizen of the United States, residing at Wakefield, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Car-Seats, of which the following is a specification.

This invention relates to seats connected and arranged in pairs, and is intended particularly, but not necessarily exclusively, for electric and other street-cars and narrow-gauge cars. Such cars are of course made more narrow than ordinary railway-cars, and it is desirable to have the seats face forward and in pairs rather than inward, the main difficulty being the lack of room for two rows of seats in pairs with an aisle between the rows.

It is the object of this invention to provide pairs of seats so arranged and constructed that there may be two rows of seats in pairs facing normally forward, that there may be room for an aisle between said rows, that there may be ample room for the person occupying the window-seat of a pair to pass in front of the person occupying the aisle-seat to the aisle, that the seats may be revoluble, that revolving one seat of a pair may cause the other to revolve with it, and that the two seats constituting a pair may be turned simultaneously to face in any direction or by loosening suitable set-screws adjusted to face in different directions, as desired.

The nature of the invention or improvement is fully described below and illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of a pair of car-seats embodying my invention. Fig. 2 is a similar view showing a portion broken out in order to illustrate the adjusting and connecting mechanism. The above figures (1 and 2) taken together illustrate the relative position of two pairs of seats in one row facing the front end of the car. Fig. 3 is a front elevation of a pair of car-seats illustrating the improvement. Fig. 4 is a horizontal section, in enlarged detail, taken on line *x*, Fig. 5, showing the quadrant and adjusting mechanism. Fig. 5 is an enlarged detail, partly in vertical section and partly in elevation, illustrating the adjusting and connecting mechanism.

Similar letters of reference indicate corresponding parts.

A represents a base or standard adapted to be secured to the floor and provided with a pair of oppositely-extending arms *A'*, each of which supports rotatively a seat by means of a socket *a* and spindle *a'*, extending down through the outer end of the arm. In securing the base to the car-floor it is so set that the arms are at an angle other than a right angle with the aisle, say thirty-five to forty-five degrees, so that the seats *B B'* are arranged as shown in Figs. 1 and 2, the center of the aisle-seat *B'* being decidedly to the rear of the center of the window-seat *B*, the effect being that the arms and shoulders of the person in the window-seat are ahead of the arms and shoulders of the person in the aisle-seat, so that they do not touch or interfere with each other. It is obvious, therefore, that the seats may be made much narrower or less in diameter than would be the case if they were exactly side by side. Hence in practice there is room in a street-car for two rows of pairs of forward-facing seats with an aisle between the rows.

I wish it understood, however, that I do not claim it to be broadly new in this invention to set two seats diagonally, *i. e.*, one slightly ahead of the other, that having been shown in Letters Patent No. 493,242, granted to Gilman B. Bolton and myself March 14, 1893, in which two seats are connected and set diagonally and adapted to face inward in a street-car. The seats, which may be reclining or otherwise, are suitably braced at *b*.

Each of the spindles *a'* is provided with a sprocket-wheel *C*, which is adjustably rigidly secured to the spindle by any suitable means, such as a set-screw *c*, said sprockets being connected by a chain *D*. Thus turning one seat rotates the other, so that they may be made to face forward or toward the aisle or in any other direction. It is evident also that by loosening the set-screws *c* and adjusting the sprockets and seats with relation to each other the latter may be made to face in different directions. The arrangement shown in full lines in Figs. 1 and 2 is perhaps preferable, and it will readily be seen by referring to these figures together that the occu-

pant of the window-seat B can readily pass in front of the occupant of the aisle-seat B' to reach the aisle.

In order to enable the seats in a pair to be held in a selected position and to be adjustable simultaneously to different positions, I provide a quadrant E, which is integral with and extends from the socket *a* at the end of one of the arms A', said quadrant being furnished with the slot E'. Into this slot a slide F extends, being adjustably fixed therein by the threaded stem F'' and nut H. The upper portion of this slide is formed into two uprights F', horizontally perforated to receive the headed bolt K, whose inner end is held normally in the socket L, extending down from the brace or frame *b* of one of the seats, by the spring N, which lies between the outer upright F' and the pin *n* in the bolt K. Thus by withdrawing the bolt K from the socket L the slide F may be set at any point in the slot E', the bolt and socket locking them at such point, said bolt and socket being located in such position that passengers will not be likely to interfere with them.

It will be noticed by reference to Fig. 3 that each of the seats has two sockets or lugs

L. The sockets on the inside seat B are not necessary, but exist because the same casting is used for both seats. The sockets L on the outside seat B' are used alternately—that is to say, the bolt K engages one socket when the seat is faced in one direction and the other when it is faced in the reverse direction. No bolt is needed on the inside seat B, as the outside seat controls its movement.

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

The seats B B' each revolving by means of its spindle and both spindles being supported by the standard A, mechanism for communicating rotation from one spindle to the other, the quadrant E provided with the slot E' and extending from one spindle-support, sockets secured to one seat, the slide F supported by the arm E, and the locking-bolt K supported by the slide and adapted to engage said sockets and lock the seats in any desired position, substantially as described.

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Witnesses:

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