

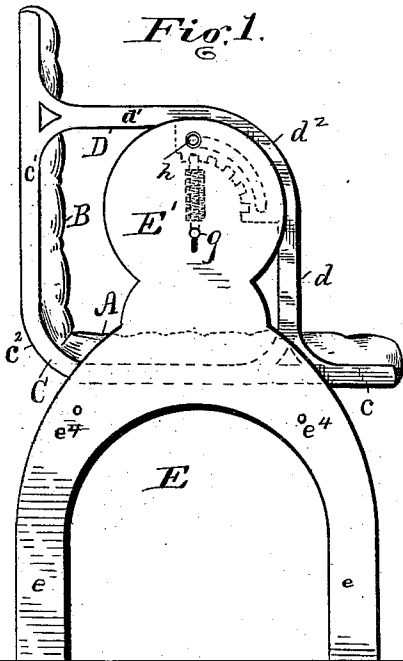
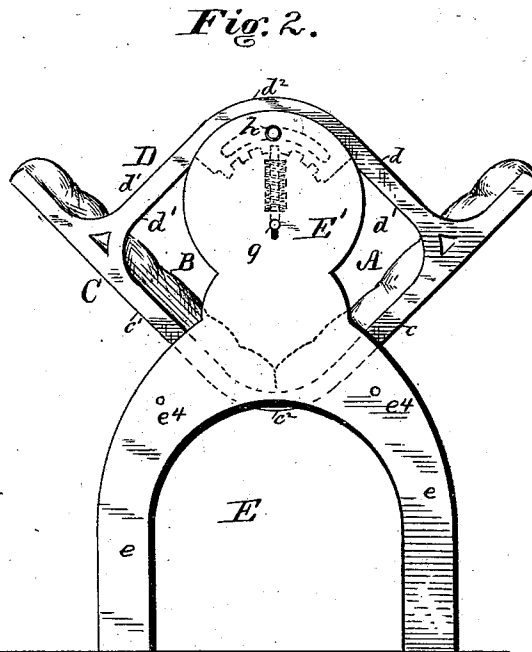
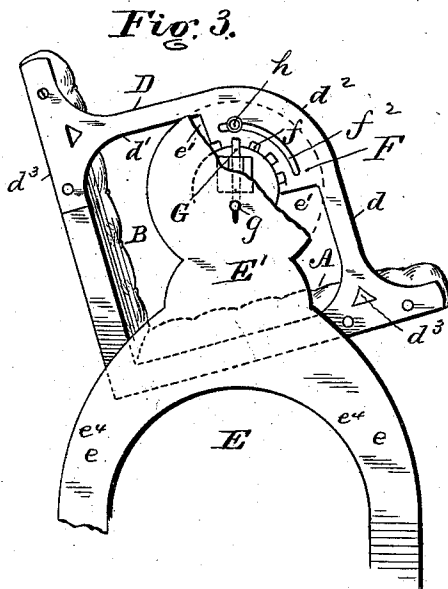
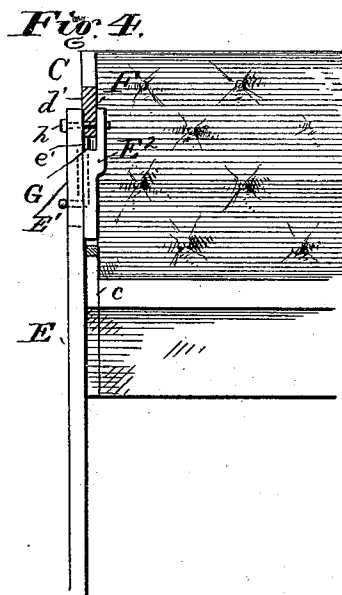
(No Model.)

C. W. JOHNSON.

CAR SEAT.

No. 358,454.

Patented Mar. 1, 1887.



WITNESSES:

A. A. Connolly
W. C. Chaffee

INVENTOR

Chas. W. Johnson,
By Connolly Bros.,
Attorneys

UNITED STATES PATENT OFFICE.

CHARLES W. JOHNSON, OF PHILADELPHIA, PENNSYLVANIA.

CAR-SEAT.

SPECIFICATION forming part of Letters Patent No. 358,454, dated March 1, 1887.

Application filed November 25, 1885. Serial No. 153,920. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. JOHNSON, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Car-Seats; and I do hereby declare the following to be a full, clear, and exact description of the invention, reference being had to the accompanying drawings, which form part of this specification, in which—

Figures 1, 2, and 3 are end elevations showing different positions of the seat. Fig. 4 is a front detail elevation, partly in section.

My invention has for its object to provide a car-seat the seat and back portions of which are reversible or interchangeable in their relative positions, so that the seat portion may be transferred to form the back, and vice versa.

A further object of my invention is to provide a car-seat which may be adjusted so as to be tilted into an inclined or recumbent position and be fixed in such position.

A further object of my invention is to provide a construction of car-seat which will permit the same to be utilized for the purpose of forming a berth, bed, or couch, or the support for a mattress in a sleeping-car.

A further object of my invention is to avoid all catches, moldings, and bars on the inner ends of seats, substituting therefor round corners, which may be well cushioned.

My invention consists in the peculiar construction and combination of parts hereinafter fully referred to, having reference, first, to the peculiar construction of a combined seat and back; second, to the combination of a reversible back and seat, or a frame therefor, with a support or standard, on which the seat or back frame is swiveled or mounted, and a locking device whereby the combined seat and back may, when adjusted to any desired position or inclination, be held fast in such position; and, third, to certain details of construction and combination hereinafter fully described.

Referring to the accompanying drawings, Fig. 1 shows a car-seat embodying my improvements, in which A represents the seat or

part on which an occupant sits, and B the back portion, against which the occupant's back rests, said parts being at or about right angles to each other, or one in a horizontal and the other in a vertical position. Said two parts A and B may be originally made in separate parts in the form of frames or cushions, as shown in Fig. 3; or they may be made in one part, if desired, as shown in Fig. 1. In either case they are secured to an end frame, C, which is of the peculiar form shown. Said frame C is designed to be made of metal or wood, and if of metal is preferably a casting, having a side, *c*, and another side, *c'*, at right angles thereto, said two sides being connected by a curve, *c''*, at their intersection. The sides *c* and *c'* are also connected by a piece, D, which forms an arm, and consists of the two parts *d* and *d'*, united by a curved piece, *d''*. I have designated these parts by separate letters; but it will be understood, of course, that the entire side frame, C, will be a single casting if made as shown in Figs. 1 and 2. If the side frame be made as shown in Fig. 3, it will consist, essentially, of the arm-piece D, having ends *d* and *d'*, secured by screw-fastenings to the ends of the frames of the cushions A and B, the parts *c*, *c'*, and *c''* being omitted. In every case the arms D should be upholstered or cushioned.

E represents the side frame or end, which forms the support for the car-seat and rests upon the floor of the latter. It has two legs, *ee*, and a head, *E'*, on which latter is fulcrumed or swiveled the frame C or arm D. It will be understood, of course, that there will be two frames C and two arms D and two frames or supports E for each seat, so as to afford due support to the latter at either end thereof. The inner frame, E, or one next the wall of the car, may be divided into two parts horizontally. The frames E are formed on their upper surfaces or edges with annular grooves *e'*, in which fit the flanges or quadrants F, formed on or rigidly secured to the under side of the arm D or its curve *d''*.

In the head *E'* of the frame E there is fitted a sliding bolt, G, from which projects a knob or finger-piece, *g*, by means of which the bolt is operated. This bolt is so arranged that normally it will be held up by a spring, in order

that its upper end may enter one of the notches *f* of the segment or quadrant *F*, and thereby form a lock for the seat.

A bolt, *h*, passes through a lateral opening in the head *E'*, and through a curved slot, *f'*, in the segment or quadrant *F*, thus holding the seat in position on the frame or support *E* and preventing it from being lifted off of the latter. Ordinarily the seat will occupy the position shown in Fig. 1, or the converse position, which would result from moving the seat portion into a vertical or approximately vertical plane and the back into a horizontal or nearly horizontal position. If it be desired to tilt or incline the seat, this can be effected by moving down the bolt *G*, so as to release it from engagement with the notched segment or quadrant *F*, and then swinging the seat on the supporting-frame *E* until the desired position—such, for example, as that shown in Fig. 3—is attained, the bolt being then released and allowed to enter a notch, *f*, in the quadrant *F*, which will hold the seat in its adjusted position.

Frames *C* and arm *D* are in vertical planes, and to enable them to remain so and yet obtain a rest on the frame *E* the latter are widened or thickened on the inner side of their heads *E'* by the formation of cheek-pieces *E''*, as shown in Fig. 4. To brace the end frames or supports, *E*, they should have stays or tie-rods *e' e'*, connecting them, as shown, below the circle described by the seat in reversing.

It will be noted that the car-seat is supported directly upon the end frames, *E*, without the intervention of any levers; that the change of relative position of the back portion and the seat portion may be very readily accomplished by a swiveling or annular sliding motion, and that when the desired position has been attained it is secured by means of a bolt.

It will be further remarked that while the positions of the seat and back portions, respectively, are interchangeable the seat may be adjusted, as shown in Fig. 3, so as to give it a tilted or inclined position, and that the construction provided also permits the seat to be swung into such a position that the outside edges of the seat portion and back portion are in the same horizontal plane as shown in Fig. 2, in which position the seat will form a support for a mattress or cushion.

By reason of the construction described it will be seen that the combined car-seat and back are sustained on the end frames or supports, *E*, through the medium of the arm-pieces *D*, said frames *E* forming bearings on which said arms *D* turn or swivel. It will also be observed that the back and seat, in changing

position, describe a segment of a circle whose center is the middle of the head *E'*, and that this segment is below the fulcrum on which the combined seat and back swing or turn. The motion of the back and the seat is therefore directly the reverse of that of a car-seat in which the back portion is pivoted to the end frame by means of a bar or lever, and in which such back, when reversed, swings over the car-seat and describes an arc of a circle above its support or pivotal point.

I have described the end piece of the combined back and seat as consisting of a frame, *C*, and arm portion *D*, as shown in Figs. 1 and 2; but it will be obvious that such end piece may consist simply of the arm portion *D*, having suitable extensions on its ends to attach it to the frames of the cushions *A* and *B*, and secure a firm bearing or a hold thereon, as shown in Fig. 3.

By reason of the construction described it will be seen that the distance from the circle described by the seat in changing position to the floor may be one foot or more, thus making the space directly under the seat available for satchels, &c.

The car-seat, as shown and described, is intended to be a single seat, large enough to accommodate two persons. If desired, the seat may be divided in two, or two separated seats be obtained, by providing a middle support, *E*, with two grooves in its head *E'* to receive the adjacent end pieces, *C*, or arms *D* of the individual car-seat.

What I claim as my invention is—

In a car-seat, the combination, with a vertical end piece which forms a support and consists of a frame designed and adapted to be fixed in position, and having a circular groove on its upper edge, and a movable frame which forms the end piece of a swinging or reversible seat and the connecting medium for the back and seat portions, said movable frame having a notched quadrant which enters the groove in the vertical support and having also a curved slot, of a connecting-bolt which passes through an opening in the vertical support and through said curved slot in the movable frame, and a spring-bolt having its bearings on the said fixed support and engaging with said notched quadrant, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 17th day of November, 1885.

CHAS. W. JOHNSON.

Witnesses:

A. A. CONNOLLY,
R. DALE SPARHAWK.