

No. 675,368.

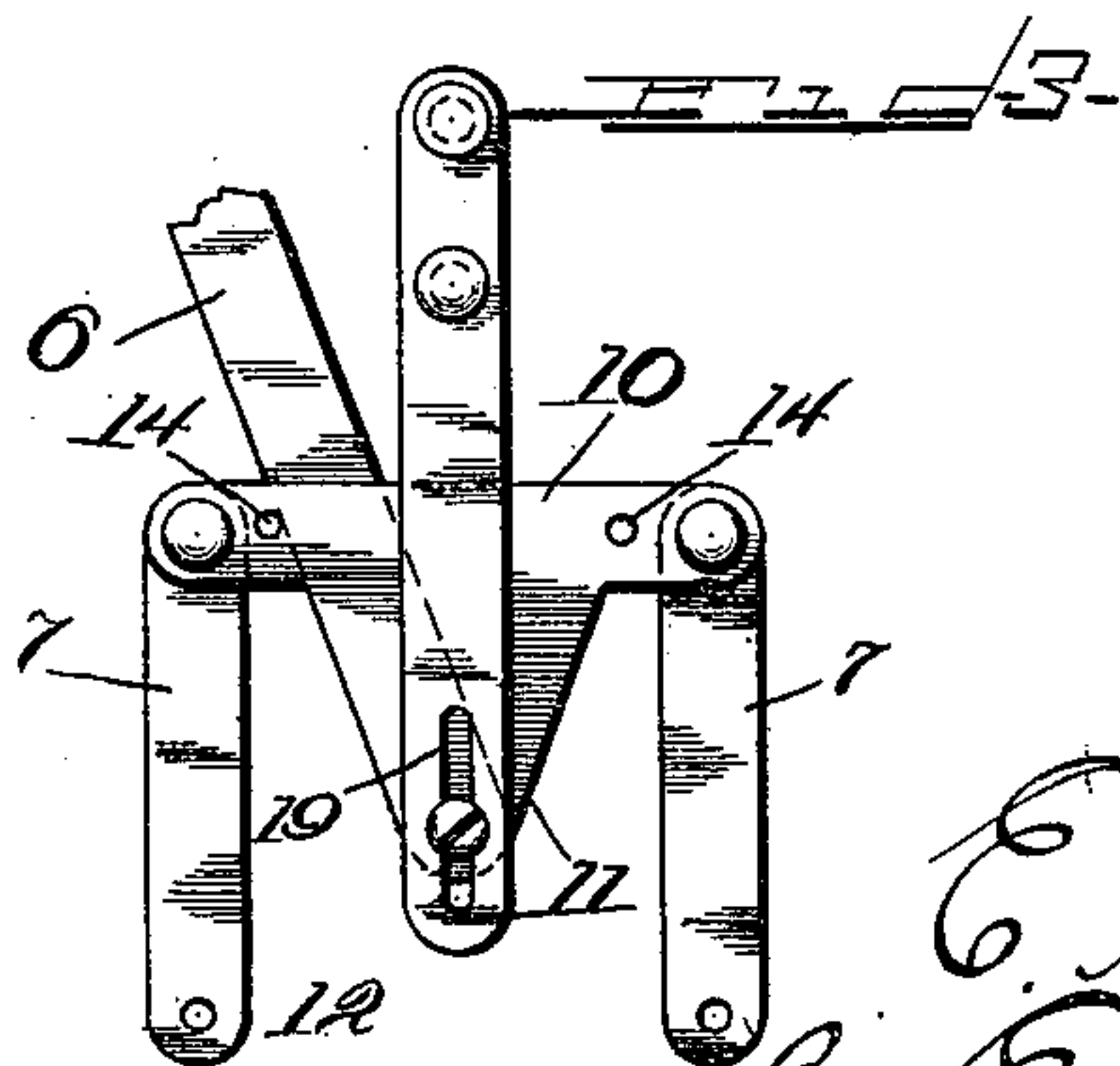
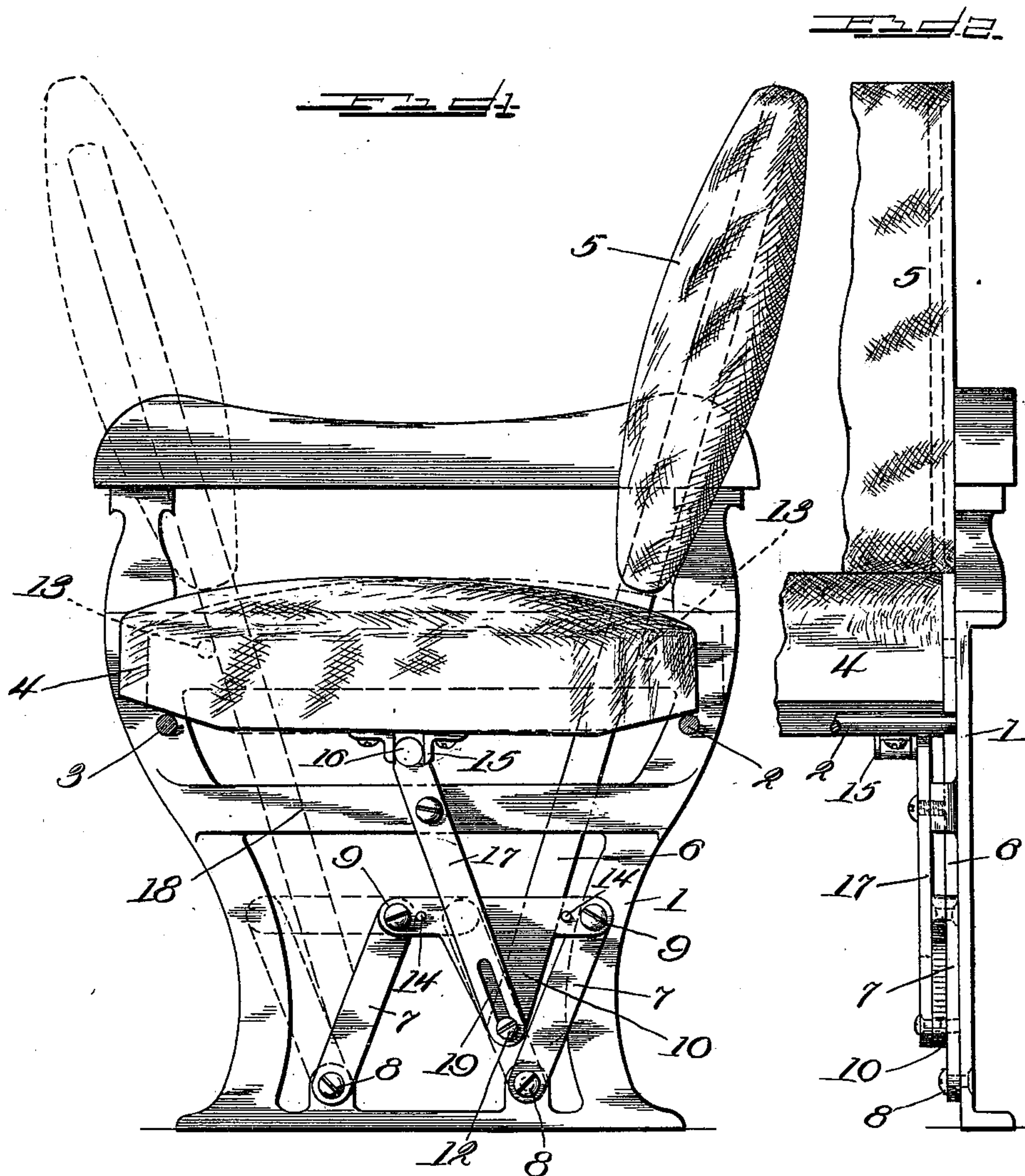
Patented May 28, 1901.

E. N. GILFILLAN.

CAR SEAT.

(Application filed Apr. 2, 1900.)

(No Model.)



WITNESSES

Ira H. Perry
J. B. Weir

INVENTOR

E. N. Gilfillan
By *Edwin & Hopkin's*
ATTY

UNITED STATES PATENT OFFICE.

ESSINGTON N. GILFILLAN, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE
WHEELER COMPANY, OF ILLINOIS.

CAR-SEAT.

SPECIFICATION forming part of Letters Patent No. 675,368, dated May 28, 1901.

Application filed April 2, 1900. Serial No. 11,077. (No model.)

To all whom it may concern:

Be it known that I, ESSINGTON N. GILFILLAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Car-Seats, of which the following is a full, clear, and exact specification.

My invention relates to that class of reversible car-seats in which the back may be shifted forward and back for changing the facing direction; and it has for its primary object to pivot the back-supporting arms at a point near the floor and at the same time prevent such arms from partaking of the full inclination that would naturally follow from shifting them the distance necessary for changing the facing direction of the back, thus also preventing the back from being excessively inclined when in position for use.

With these ends in view my invention consists in certain features of novelty in the construction, combination, and arrangement of parts by which the said objects and certain other objects hereinafter appearing are attained, all as fully described with reference to the accompanying drawings, and more particularly pointed out in the claims.

In the said drawings, Figure 1 is a side elevation of my improved seat, showing one end of the frame removed or cut off. Fig. 2 is a front view thereof with one end of the seat broken away, and Fig. 3 is a detail side elevation of the mechanical movement by means of which the position of the back is controlled.

1 represents the end frames of the seat, which are connected together by horizontal tie rods or bars 2 3 and which in my invention are employed as substitutes for the usual sills upon which the rockers of the seat-cushion 4 rest and slide as the facing direction of the back 5 is changed.

6 represents back-supporting arms, which are shown in the form of plain bars extending upwardly into suitable sockets in each end of the back, as usual, or in any suitable way, and which arms are located between the ends of the cushion 4 and the frames 1 and have their lower ends provided with floating pivotal supports having a limited movement, so that when the back is thrown over from

side to side the arms 6 will not only make a pivotal movement, but will also shift bodily in the direction of the throw. This floating pivotal support consists of a pair of parallel arms 7, pivoted at 8 to portions of the frame members 1 at their lower ends, while their upper ends are pivoted at 9 to a cross-bar 10, to which latter the arm 6 at each end of the seat is pivoted. For the purpose of bringing the pivotal point of the arm 6 near the floor while providing for a wide range of lateral movement for it the cross-bar 10 has a lug 11 dropped down from its under side, and on the lower end of this lug is carried the pivot 12 for the arm 6. The pivotal movement or oscillation of the arm 6 is limited by stops 13, projecting from the inner sides of the end frames 1 on both sides of the seat, and at or near each end of the cross-bar 10 is a lug 14, against which the arm 6 strikes when the back is shifted, and thus causes the parallel arms 7 to shift from side to side.

With the described construction it will be seen that when the back is thrown from side to side its first movement will be a pivotal one solely on the pivot 12, which will continue until the arm strikes one of the lugs 14, whereupon the arms 7 will move with the arms 6, carrying the pivotal support 12 in the direction of movement of the back and causing the back-supporting arms to move bodily until they strike one of the stops 13, thus giving the back the requisite throw without compelling it to partake of the angle of inclination that would naturally follow if the arms 6 were supported on fixed pivots. In order that this movement may also impart the desired shifting movement to the seat-cushion, the rockers of the cushion are provided with yokes or notches 15, in which engage lugs 16, carried by upright levers 17, one of which is pivoted to a cross-bar 18 on each of the frames 1 and has a slot 19 in its lower end, through which the pivot 12 passes, thus causing the seat-cushion to shift in the opposite direction to that in which the arms 6 are thrown. This is evident from the fact that when the upper end of arm 6 is thrown in one direction the upper end of arm 17, which is pivoted to bar 18 between its connection with the arm 6 and seat-yoke 15, will be

forced in the opposite direction, and since the lug 16 on arm 17 is free to slide up and down in yoke 15 on the bottom of the seat, but cannot move laterally without also moving the yoke 15 with it, it follows that the seat-rockers 4 will be compelled to slide on their sills 2, but without lifting therefrom, a distance equal to the throw of the upper end of arm 17 and in a direction opposite to the movement of the back 5. The pivot 12 in conjunction with the pivoted arm 17 may also constitute means for limiting the rocking movement of the arms 7, such movement being checked when the pivot 12 reaches the bottom of the slot 19.

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

1. In a reversible car-seat movement the combination of a back-supporting arm extending to a point contiguous to the floor, stops for limiting the throw of said arm, a floating pivotal support for the lower end of said arm, said arm having a limited motion independently of said floating support, and means carried by said floating support for imparting the motion of said arm to said support and limiting the independent motion of the back-supporting arm with relation to said support, substantially as set forth.

2. In a reversible car-seat movement the combination of a back-supporting arm, a pair of pivoted arms connected together and to which said back-supporting arm has pivotal support at a point below the upper ends of said arms and upon which pivotal support said back has oscillatory motion independently of said arms and means for limiting the independent motion of said back-supporting arm with relation to said pair of pivoted arms, substantially as set forth.

3. In a reversible car-seat movement the combination of a back-supporting arm, a pair of pivotal arms, a cross-bar connecting said pivotal arms and upon which cross-bar said back-supporting arm has pivotal support,

means for limiting the oscillation of said back-supporting arm with reference to the seat-frame and means for limiting the oscillation of said back-supporting arm with reference to said pivotal arms, substantially as set forth.

4. In a reversible car-seat movement the combination of a back-supporting arm, parallel pivoted arms, a cross-bar pivoted to said parallel arms and having a depending support to which said back-supporting arm is pivoted, means for imparting the motion of said back-supporting arm to said parallel arms and means for limiting the oscillation of said back-supporting arm, substantially as set forth.

5. In a reversible car-seat movement the combination of a back-supporting arm extending to a point near the floor, a pair of upright pivotal arms pivoted near the floor, a cross-bar pivotally connecting the upper ends of said pivotal arms and to which said back-supporting arm is pivotally connected, lugs movable with said pivotal arms for limiting the independent oscillation of the back-supporting arm with reference to the pivotal arms and means for limiting the motion of said back-supporting arm and pivotal arms, substantially as set forth.

6. In a reversible car-seat movement the combination of a back-supporting arm provided with a floating pivotal support, a seat, a pivoted lever having operative relation to said pivotal support and also to said seat for shifting the latter in unison with the back-supporting arm, substantially as set forth.

7. In a reversible car-seat movement the combination of a back-supporting arm having a floating pivotal support, a shiftable seat, and a pivoted lever having sliding connection therewith and also sliding connection with said floating pivotal support, substantially as set forth.

ESSINGTON N. GILFILLAN.

Witnesses:

EDNA B. JOHNSON,
F. A. HOPKINS.