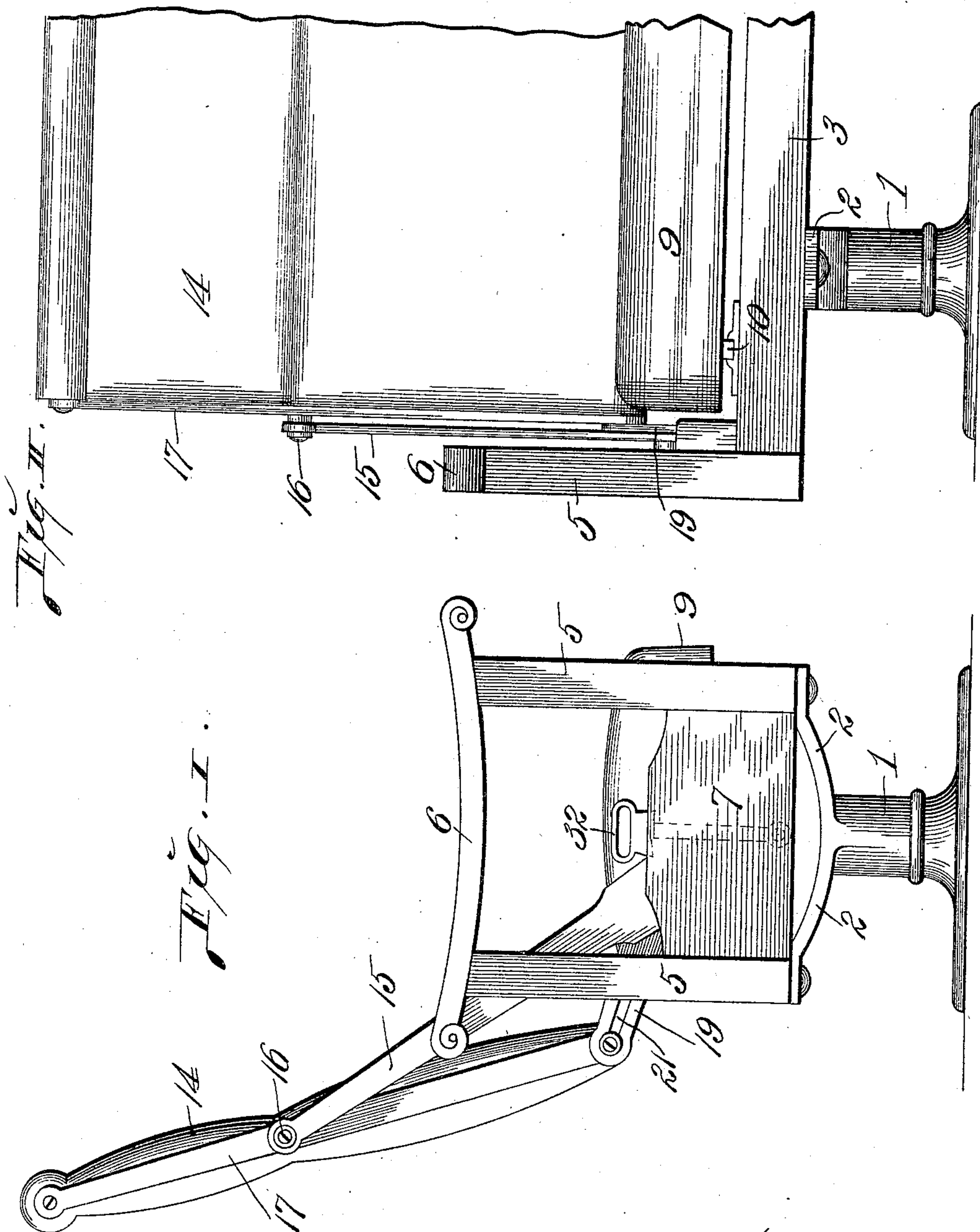


No. 810,833.

PATENTED JAN. 23, 1906.

H. WITTE.  
REVERSIBLE CAR SEAT.  
APPLICATION FILED JULY 7, 1905.

2 SHEETS—SHEET 1.



Attest:—  
M. Smith,  
Blanche Hogan

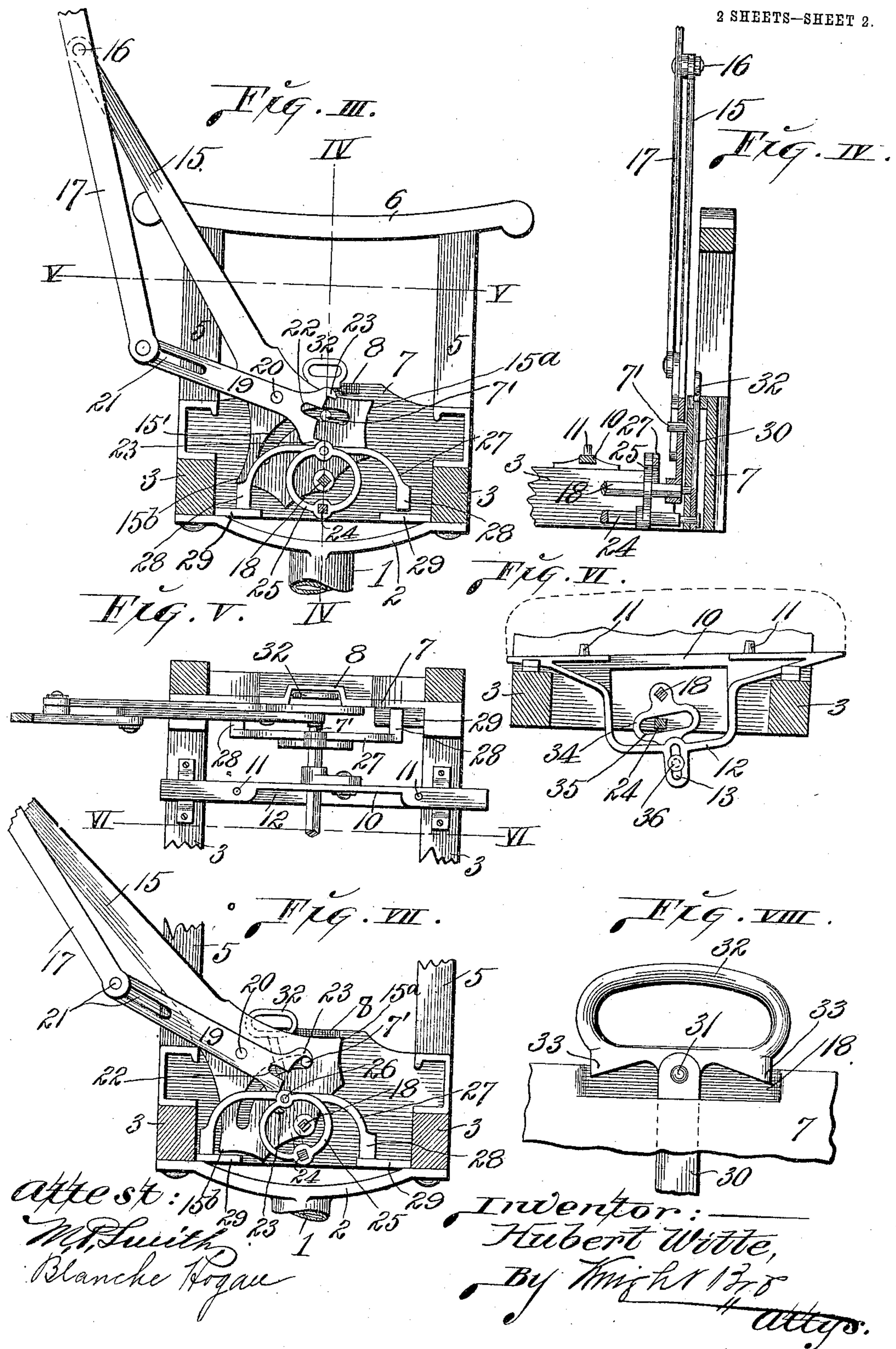
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# UNITED STATES PATENT OFFICE.

HUBERT WITTE, OF ST. LOUIS, MISSOURI, ASSIGNOR TO ST. LOUIS CAR COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION.

## REVERSIBLE CAR-SEAT.

No. 810,833.

Specification of Letters Patent.

Patented Jan. 23, 1906.

Application filed July 7, 1905. Serial No. 268,649.

*To all whom it may concern:*

Be it known that I, HUBERT WITTE, a citizen of the United States, residing in the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Reversible Car-Seats, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to that class of car-seats commonly known as "walk-over" seats, in which the seat-back is arranged to swing from side to side of the seat, and the cushion is arranged to be tilted to properly position it relatively to the seat-back in either position to which it is shifted.

Figure I is an end elevation of my seat. Fig. II is a front elevation of one end of the seat. Fig. III is a vertical cross-section. Fig. IV is a vertical longitudinal section taken on line IV IV, Fig. III. Fig. V is a horizontal section taken on line V V, Fig. III. Fig. VI is a vertical cross-section taken on line VI VI, Fig. V. Fig. VII is a similar view to Fig. III, showing the parts in the position assumed when the seat-back is in a reclined position. Fig. VIII is an elevation of the handle of one of the rock-levers by which the back-supporting-arm-controlling means are actuated.

In the accompanying drawings I have illustrated but one end of my car-seat, and it will be understood that a description of said end will apply equally to the other end of the seat.

1 designates the seat-legs, which are provided with arms 2, which support the longitudinal rails 3, extending from end to end of the seat.

5 represents uprights secured to the rails 3 at their ends and which are surmounted by arm-rests 6.

7 designates the seat ends, which are secured to the longitudinal rails 3, each of said seat ends being provided centrally at its upper edge with a pocket 8, (see Figs. III to V, inclusive, and Fig. VIII,) the purpose of which will hereinafter be explained.

9 designates the seat-cushion. This cushion is tiltingly supported upon rests 10, (see Figs. II and IV to VI, inclusive,) which are loosely seated on the longitudinal rails 3, the rests be-

ing preferably provided with dowels 11, that enter into the cushion at its lower side. Each rest has a yoke 12 provided with a centrally-disposed vertical slot 13, which receives a member that serves to tilt the rest, as will hereinafter appear.

14 designates the seat-back, and 15 represents back-supporting arms pivoted at 16 to the end bars 17 of said back, as seen in Figs. I to IV, inclusive. The back-supporting arms are fixed to a rock-shaft 18, journaled in the seat ends 7, as seen in Fig. IV. Each back-supporting arm is enlarged at its lower end and contains a curved slot 15', and at the front and rear of the enlargement of each arm are respectively extensions 15<sup>a</sup> and 15<sup>b</sup>. The slots 15' in the back-supporting arms receive stop-studs 7', projecting from the inside faces of the seat ends 7, (see Figs. III to V, inclusive, and Fig. VII,) the said stop-studs serving to restrict the movement of the back-supporting arms when they are swung from side to side of the seat.

19 designates restraining-links for limiting the rocking motion of the seat-back. These links are pivoted at 20 to the back-supporting arms 15, and they have slot-and-pin connection at 21 with the lower ends of the seat-back end bars 17, thereby permitting freedom of movement of the seat-back depending upon the restraining-links. At the center of the inner end of each restraining-link is a notch 22, that is adapted to receive the adjacent stop-stud 7' when the seat-back is swung from side to side of the seat and for the permission of which the back and its end bars and the restraining-links are moved into alignment with the back-supporting arms 15 in order that said parts may be rocked as a unit from one side of the seat to the other side.

23 represents prongs or catch-teeth forming parts of the restraining-links 19 and with which said links terminate at their inner ends at opposite sides of the central notches 22. These prongs are adapted to engage the stop-studs 7' when the seat-back is in a reclined position, as seen in Fig. VII, and by such engagement serve to hold the restraining-links from movement in order that the seat-back may be prevented from tilting between its supporting-arms 15.



24 designates a rock-shaft, the ends of which are journaled in the seat ends 7, as seen in Fig. IV.

25 is a link fixed to the rock-shaft 24 and extending upwardly therefrom. This link has pivoted to it at 26 a dog-carrying bar 27, which terminates at its ends in dogs 28, extending laterally toward the seat ends 7 and adapted to be moved into the path of travel of the back-supporting-arm extensions 15<sup>a</sup> and 15<sup>b</sup>. Beneath the dogs 28 are ledges 29 on which the dogs are adapted to rest under certain conditions. These ledges are preferably integral with the seat ends 7.

30 designates a hand-lever at one end of the seat, which may, if desired, be duplicated at the other end. This hand-lever is fixed to the rock-shaft 24 and extends upwardly within a space provided therefor in one of the seat ends, as seen most clearly in Fig. IV. The hand-lever has pivoted to its upper end at 31 a handle 32, that is provided at its lower side with a pair of tongues 33, located at opposite sides of the point of pivotal connection of the handle to the lever. The tongues 33 are adapted to occupy the pocket 8, hereinbefore mentioned, in the seat end 7. The point of pivotal connection of the handle to the lever 30 is sufficiently above the pocket 8 to permit of said handle being rocked in the pocket in order that the tongue 33 at either end of the handle may be rocked out of the pocket and the hand-lever be rocked in a direction toward that end of the handle bearing the tongue when it is moved from the pocket. It will be seen that the tongues 33 thus serve to hold the hand-lever 30 from movement, due to their fitting in the pocket 8 until the lever-handle is rocked to free the lever, as stated.

When the hand-lever 30 is rocked in either direction, rotation is imparted to the rock-shaft 24 and the link 25 is rocked to carry the dog-carrying bar 27 transversely of the seat. When the seat-back 14 is in upright position, the dog-carrying bars normally occupy the positions seen in Figs. III and IV, at which time the hand-lever 30 is in vertical position and is so held from movement by the seating of its handle in the seat-pocket 8. With the dog-carrying bar in this position the dogs 28 at the ends of said bar, located at the sides of the seat at which the seat-back is positioned, rest upon the ledges 29 beneath them, which are provided for their support, and the adjacent extensions of the back-supporting arms rest upon said dogs to support the arms without the ends of the slots 15' therein being brought to the stop-studs 7'.

With the parts in the position described the seat-back may be shifted to the opposite side of the seat by rocking it and its supporting-arms 15, and when this is done the extensions at the edges of the back-supporting arms

which were formerly foremost are moved to the previously free dogs 28 of the bar 27, thereby depressing said dogs and causing them to rest upon the ledges beneath them to sustain the back-supporting arms. When it is desired to lower the seat-back into a reclined position, as seen in Fig. VII, the handle 32 of the hand-lever 30 is rocked so that its tongues 33 may move out of the pocket 8 in the seat end which they previously occupied. The said hand-lever may then be rocked in the direction in which the back-supporting arms are to be moved to lower the seat-back. As the hand-lever is so moved the rock-shaft 24 and link 25 are rotated, with the result that the dogs previously positioned beneath the extensions 15<sup>b</sup> or 15<sup>a</sup> of the back-supporting arms are shifted laterally to move them from beneath the supporting-arm extensions, as seen in Fig. VII, thereby allowing rocking of the back-supporting arms to the extreme limit permitted by the stop-studs 7', operating in the slots of said arms.

The cushion-rests 10 are rocked to tilt the cushion when the seat-back is moved from side to side through the following means: 34 is one of the pair of lever-arms fixed to the rock-shaft 18 and provided with an elongated opening 35, through which the rock-shaft 24 passes, the said opening being provided merely for the purpose of permitting movement of the lever-arm both above and below said rock-shaft 24 without interference with it. Each of the lever-arms 34 is provided with a stud 36, that operates in the slot 13 of the cushion-rest yoke 12. When the seat-back is swung from side to side and the back-supporting arms are moved therewith, rotation is imparted to the rock-shaft 18, and as a consequence of this rotation the lever-arms 24 are rocked, causing their lower ends to be thrown in a direction the reverse of the direction of movement of the back and its supporting-arms, whereby the cushion-rests are tilted, due to the operation of the lever-arm studs in the slot of the cushion-rest yokes.

I claim as my invention—

1. In a car-seat, the combination of seat ends, back-supporting arms swingingly supported by said seat ends, a rock-shaft, links fixed to said rock-shaft, dog-carrying bars pivoted to said links, said bars being provided with dogs arranged to be engaged by said supporting-arms and to be moved out of engagement with said arms, and means for rotating said rock-shaft, substantially as set forth.

2. In a car-seat, the combination of seat ends, back-supporting arms swingingly supported by said seat ends, a rock-shaft, dogs swingingly supported by said rock-shaft, and arranged to be engaged by said back-supporting arms, a hand-lever fixed to said rock-shaft, and a rocking handle carried by said hand-



lever and arranged for engagement with one of said seat ends, substantially as set forth.

3. In a car-seat, the combination of seat ends, back-supporting arms swingingly supported by said seat ends, a rock-shaft, dogs  
5 swingingly supported by said rock-shaft, and arranged to be engaged by said back-supporting arms, a hand-lever fixed to said rock-shaft, and a rocking handle carried by said hand-

lever and arranged for engagement with one of said seat ends; said handle being provided with tongues and said seat end being provided with a pocket to receive said tongues, substantially as set forth. 10

HUBERT WITTE.

In presence of—

ARTHUR DIEKMANN,  
HELEN J. MURPHY.