

**No. 696,095.**

**Patented Mar. 25, 1902.**

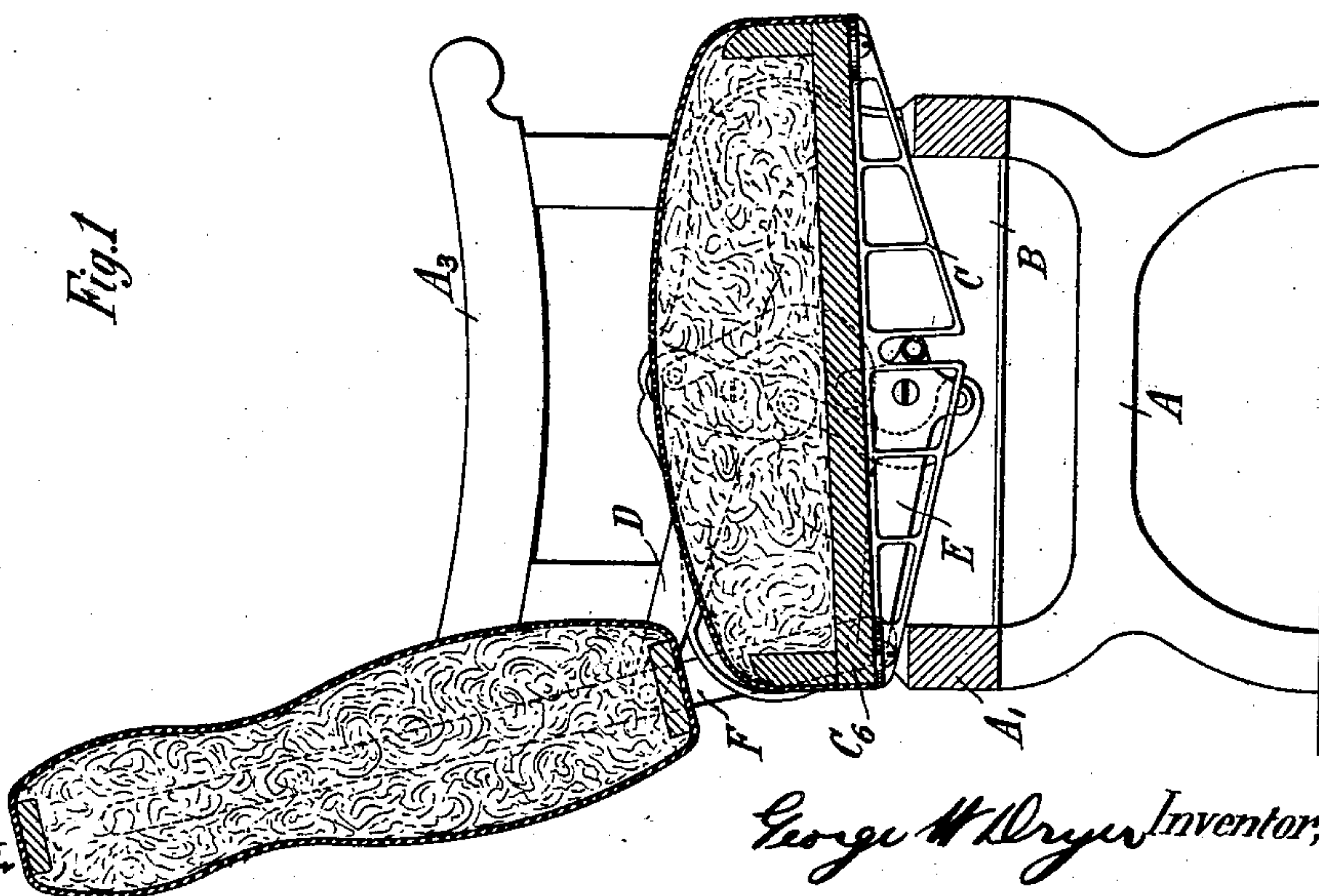
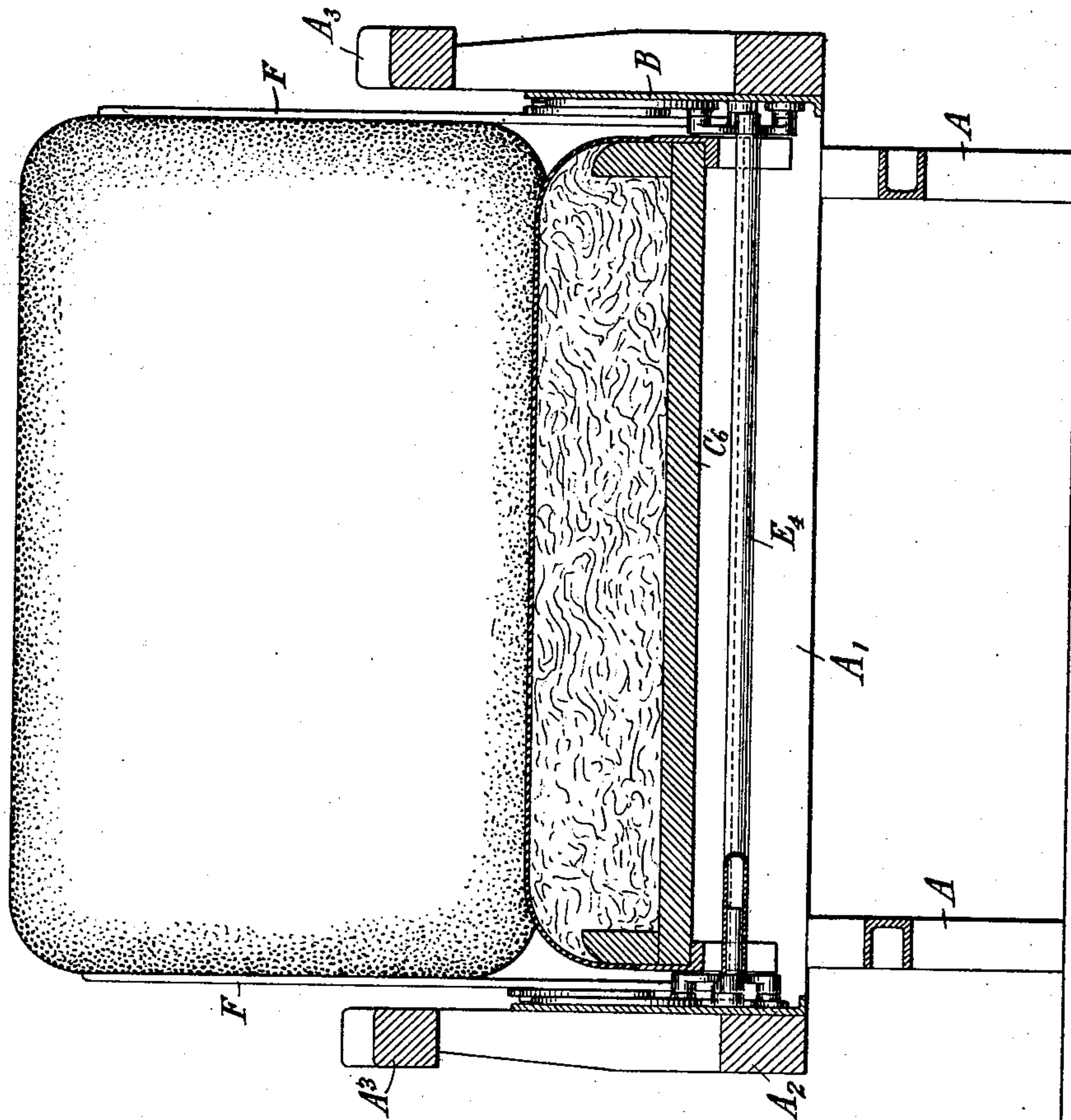
**G. W. DRYER.**

**CAR SEAT.**

(Application filed July 12, 1901.)

(No Model.)

**2 Sheets—Sheet 1.**



*Witnesses:*

Kapitel 11

Alexander Mitchell

George W. Dryer Inventor;

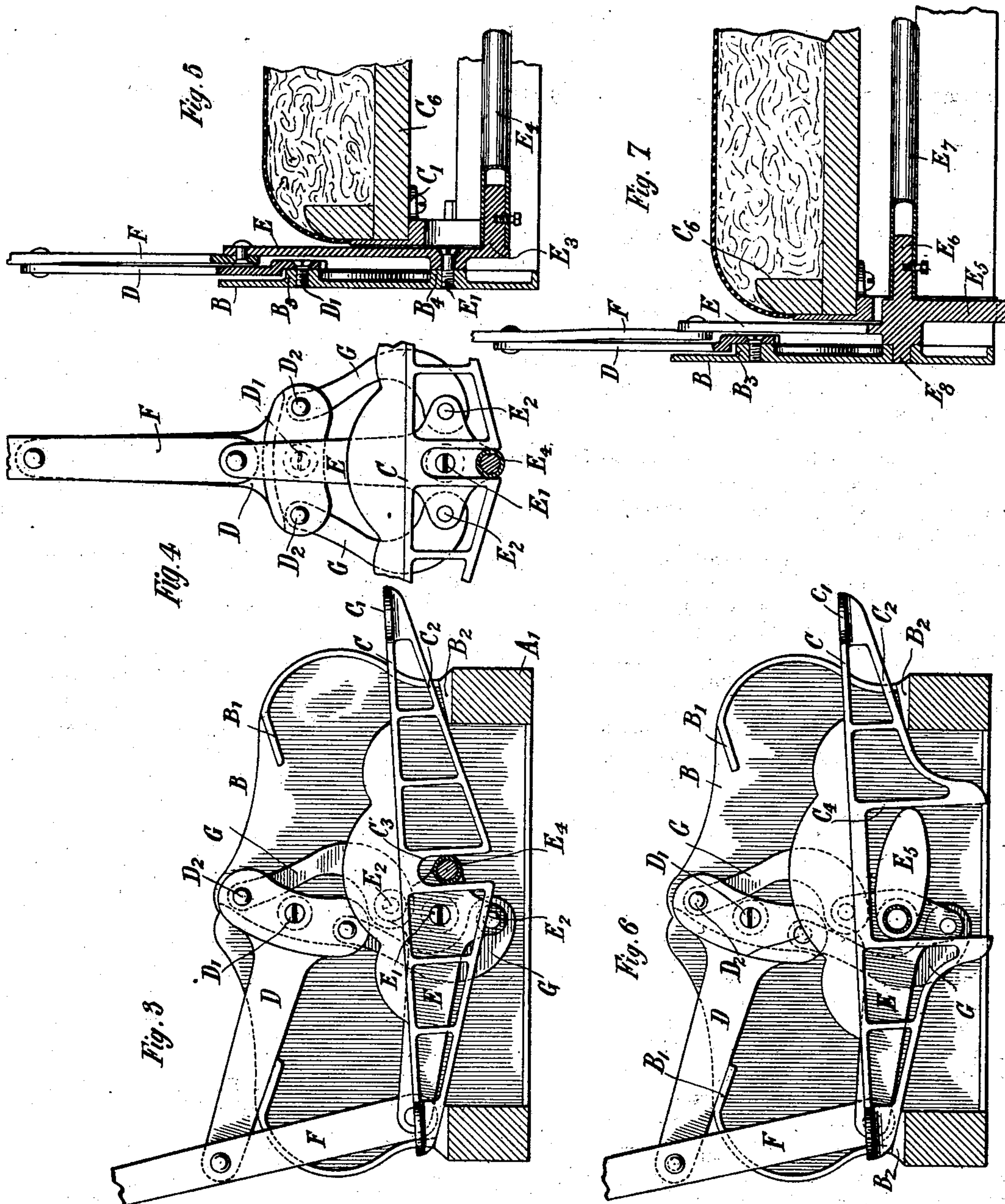
by Frederick S. Reman, Att'y.

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CAR SEAT.

(Application filed July 12, 1901.)

(No Model.)

2 Sheets—Sheet 2.



Witnesses:

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# UNITED STATES PATENT OFFICE.

GEORGE W. DRYER, OF NEW YORK, N. Y.

## CAR-SEAT.

SPECIFICATION forming part of Letters Patent No. 696,095, dated March 25, 1902.

Application filed July 12, 1901. Serial No. 67,954. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. DRYER, a citizen of the United States, and a resident of New York city, in the county and State of New York, have invented certain new and useful Improvements in Car-Seats, of which the following is a specification, reference being had to the accompanying drawings, in which the same reference characters refer to similar parts throughout the various figures.

My invention relates to car-seats of the walk-over type, in which the seat-back is shifted bodily without reversing the same, so that opposite sides of the seat-back come into operation as the seat is shifted.

Figure 1 is a side sectional view of my car-seat. Fig. 2 is a longitudinal section of the same. Figs. 3, 4, and 5 are partial sectional views showing in detail the operating mechanism for shifting the seat. Figs. 6 and 7 are similar views showing a modified form of my operating mechanism.

Upon suitable legs A is mounted the seat-frame, composed of end pieces A<sup>2</sup> and longitudinal side pieces A', securely fastened together to form a rigid frame. The arms A<sup>3</sup> are secured in any usual manner to the pieces A<sup>2</sup>. The seat ends B, formed of cast-iron or other suitable material, are rigidly secured to the seat-frame and support the operating mechanism as well as the seat cushion and back. The seat end is formed of a plate of material having suitable strengthening-ribs cast upon it and also the supporting-ribs B' and B<sup>2</sup>, formed as is indicated in Fig. 3 of the drawings. The two bearings B<sup>3</sup> and B<sup>4</sup> are formed by casting bearing-lugs on the seat end. The rocker-lever E is pivotally connected to the seat end by a bearing-bolt E', secured to the bearing B<sup>4</sup> in the seat end in any desired manner. The upper lever D is secured to the bearing B<sup>3</sup> in a similar manner. These two levers are pivotally connected at their outer or free ends to the headpiece F. In the upper lever D are mounted the two pivots D<sup>2</sup> on either side of the pivot D' and substantially in a line perpendicular to the central line of this upper lever. The two pivots E<sup>2</sup> are similarly mounted on the rocker-lever E, although they are at a less distance from the pivot E' than are the pivots D<sup>2</sup> from

the central pivot D'. The pivots D<sup>2</sup> and E<sup>2</sup> are connected in either case by the links G, which are curved, as shown, so that they do not interfere with the operation of these parts.

Upon the shorter end of the rocker-lever E is formed the cylindrical projection E<sup>3</sup>, upon which is secured the connecting-piece E<sup>4</sup>, which may be tubular, if desired, by suitable bolt or by any other means. It will be understood, of course, that there are two seat ends, one at either end of the seat-frame, and that the operating mechanism which I have just described is formed in duplicate, one set mounted on each of the seat ends, as is shown in Fig. 2. The tubular rod E<sup>4</sup> serves to connect these two sets of operating mechanism and insures their operating in unison, so that both ends of the seat-back are shifted together.

A rocker C rests at its lower inclined side C<sup>2</sup> upon the ribs B<sup>2</sup> of each of the seat ends, and the seat-cushion C<sup>6</sup>, mounted on a suitable frame, is rigidly secured at either side to lugs C' on these rockers. The rockers have formed in the central parts of the same the slot C<sup>3</sup>, in which the tubular rod E<sup>4</sup> works, and as it moves the rockers and the seat-cushion are moved laterally of the seat to adjust the seat-cushion in proper position by reason of the engagement of this rod with the guiding-pieces forming the slot. The back-cushion, with its frame, is of course rigidly-secured to the headpiece F on either side of the cushion.

In the modified form of my car-seat shown in Figs. 6 and 7 the stub-shaft E<sup>8</sup> has bearing in the bearing-lug on the seat end, and the cylindrical extension E<sup>6</sup> in this case is coincident with the axis of this shaft. The tubular rod E<sup>7</sup> is secured to the extension E<sup>6</sup> by bolts on either side of the seat, as in the other form. The rocker-lever in this case is formed with a cam E<sup>5</sup> of elliptical shape, as shown in Fig. 6, or of any other eccentric form, which engages with the slot C<sup>4</sup> in the rocker and moves the rocker and seat laterally as the rocker-lever is rotated.

The operation of my seat is as follows: When it is desired to reverse the position of the seat, the seat-back is pushed bodily in the desired direction, and this raises the seat



mechanism, since the headpiece F is linked to the levers D and E into the positions shown in Fig. 4, where the headpiece and levers are in the same line. Further movement tends to throw the upper lever over, and this lever being connected with the rocker-lever by the links G rotates this lever in the same direction, thus insuring the proper reversal of the seat. It will be noted that the seat and rockers are moved in the opposite direction from that in which the back is moved through the eccentric projection on the rocker-lever engaging the slot in the rocker, so that the rockers and seat are moved laterally and at the same time tilted as the seat is reversed. It will be seen by reference to Fig. 3 that the upper lever D engages with and is supported by the ribs B' on either side of the seat end, thus sustaining the weight of the headpiece and seat-back. Since it is desired that the headpiece F shall take an inclined position, it is necessary that the rocker-lever E be moved through a greater angle than the upper lever D, and to accomplish this result the distance between the pivots D<sup>2</sup> must be greater than that between the pivots E<sup>2</sup>, as has been set forth.

Numerous modifications may be devised by those skilled in the art. Also parts of my device may be used in connection with other devices which are well known in the art, and I do not wish to be limited to the exact form of seat which I have disclosed.

What is claimed as new is—

1. In a car-seat, seat ends having supporting-ribs formed thereon, rocker-levers and upper levers pivoted to said seat ends, said upper levers being longer than said rocker-levers, curved links pivoted to said upper levers and said rocker-levers, the link-pivots of said upper levers being farther from the center of said upper levers than the link-pivots of said rocker-levers are from the center of said rocker-levers, a seat-back pivotally connected to said rocker-levers and said upper levers, a rod to connect said rocker-levers, seat-rockers supported upon said seat ends and formed with guiding-pieces and eccentrically-mounted projections on said rocker-levers to engage said guiding-pieces.

2. In a car-seat, a seat end having supporting-ribs formed thereon, a rocker-lever pivoted to said seat end, an upper lever pivoted to said seat end, a link pivoted to said upper lever and said rocker-lever, the link-pivot of said upper lever being farther from the center of said upper lever than the link-pivot of said rocker-lever is from the center of said rocker-lever, a seat-back pivotally connected to said rocker-lever and said upper lever, said rocker-lever being shorter than said upper lever, a seat-rocker movably supported upon said seat end and formed with guiding-pieces and an eccentrically-mounted projection on

said rocker-lever to engage said guiding-pieces.

3. In a car-seat, a seat end formed with supporting-ribs thereon, a rocker-lever pivoted to said seat end, an upper lever longer than said rocker-lever pivoted to said seat end, said levers being adapted to be pivotally connected at their ends to a seat-back, a link pivoted to said upper lever and said rocker-lever, the link-pivot of said upper lever being farther from the center of said upper lever than the link-pivot of said rocker-lever is from the center of said rocker-lever, said upper lever being adapted to be supported by said supporting-ribs, a seat-rocker movably supported upon said seat end and formed with guiding-pieces and an eccentrically-mounted projection on said rocker-lever to engage said guiding-pieces.

4. In a car-seat, a seat end, formed with supporting-ribs, a rocker-lever pivoted to said seat end, an upper lever pivoted to said seat end, a link pivoted to said upper lever and said rocker-lever, the link-pivot of said upper lever being farther from the center of said lever than the link-pivot of said rocker-lever is from the center of said rocker-lever, a seat-back pivotally connected to said rocker-lever and said upper lever, said rocker-lever being shorter than said upper lever.

5. In a car-seat, a seat end formed with supporting-ribs thereon, a rocker-lever pivoted to said seat end, an upper lever longer than said rocker-lever pivoted to said seat end, said levers being adapted to be pivotally connected at their ends to a seat-back, a link pivoted to said upper lever and said rocker-lever, the link-pivot of said upper lever being farther from the center of said upper lever than the link-pivot of said rocker-lever is from the center of said rocker-lever, said upper lever being adapted to be supported by said supporting-ribs.

6. In a car-seat, a seat end formed with two sets of supporting-ribs thereon, a rocker-lever pivoted to said seat end, an upper lever longer than said rocker-lever pivoted to said seat end, the free ends of said levers being adapted to be pivotally connected to a seat-back, a link pivoted to said rocker-lever and said upper lever, the distance of said link-pivot of said rocker-lever from the center of said rocker-lever being less than the distance of the link-pivot of the upper lever from the center of said upper lever, a seat-rocker having an inclined lower surface engaging with the second set of said supporting-ribs, guiding-pieces formed on said seat-rocker and an eccentric projection on said rocker-lever engaging said guiding-pieces to shift and tilt said seat-rocker.

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Witnesses:

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