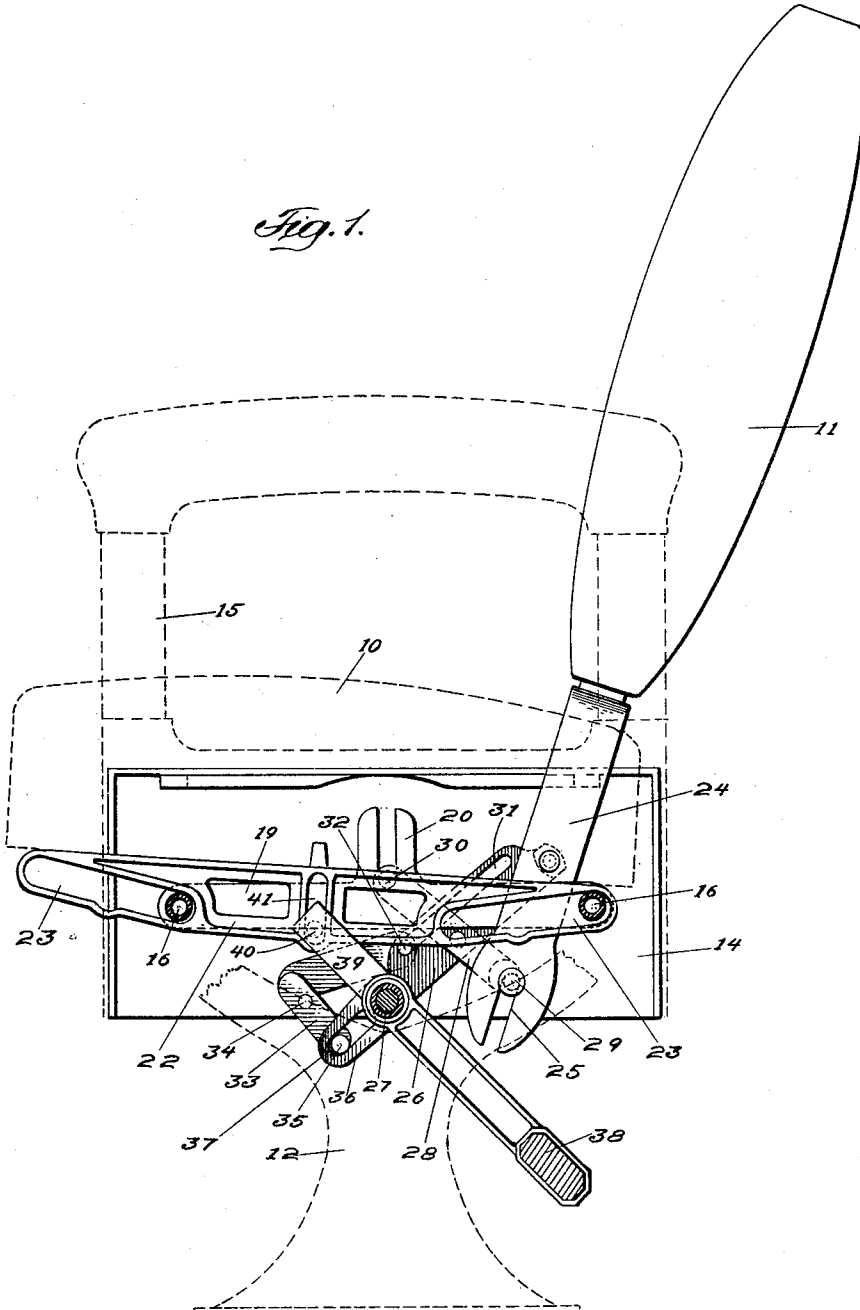


F. BENNETT.
CAR SEAT.
APPLICATION FILED FEB. 25, 1911.

1,113,402.

Patented Oct. 13, 1914.
3 SHEETS—SHEET 1.

Fig. 1.



WITNESSES
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W. C. Campbell

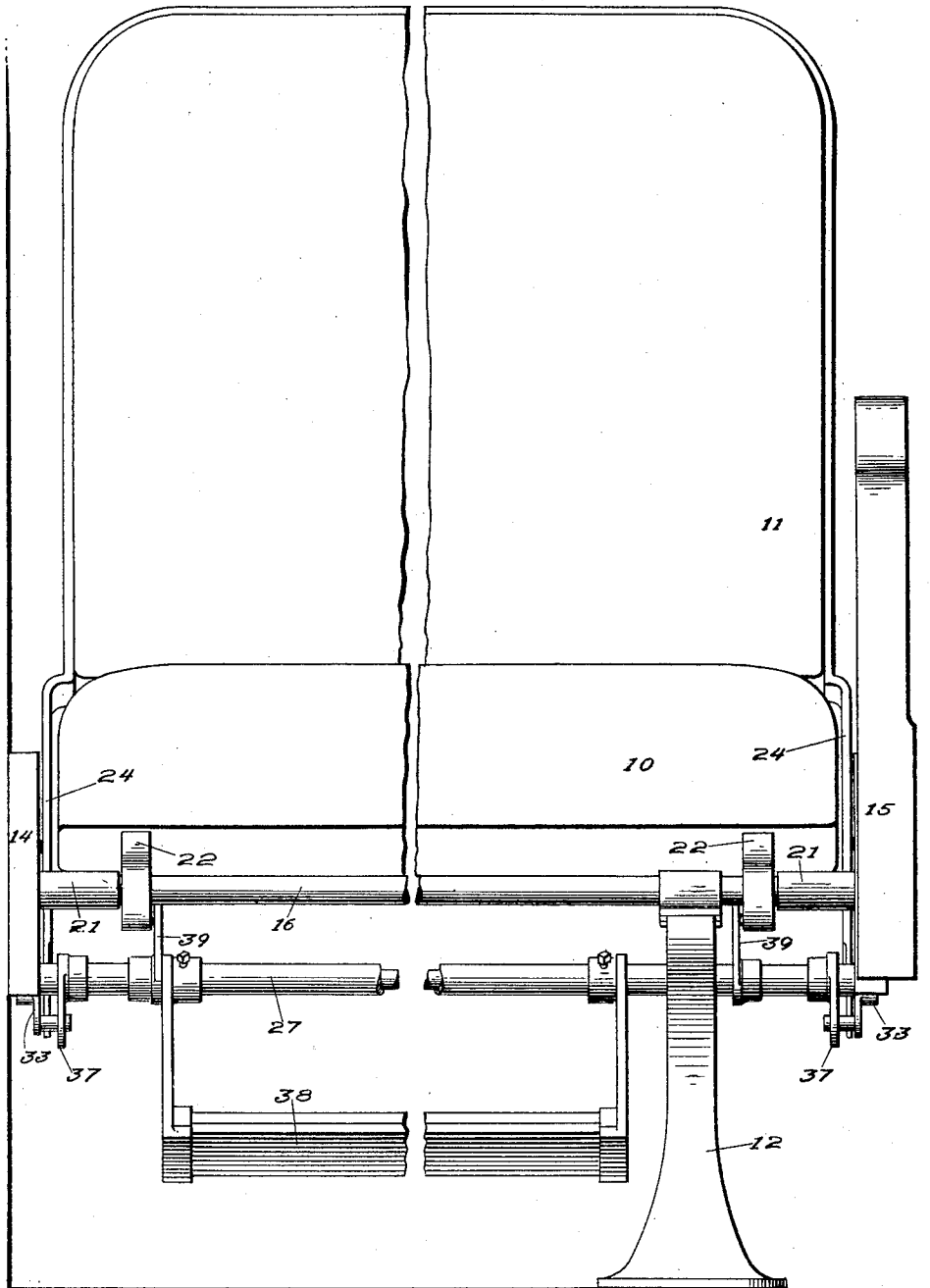
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3 SHEETS-SHEET 2.



WITNESSES

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Fig. 2.

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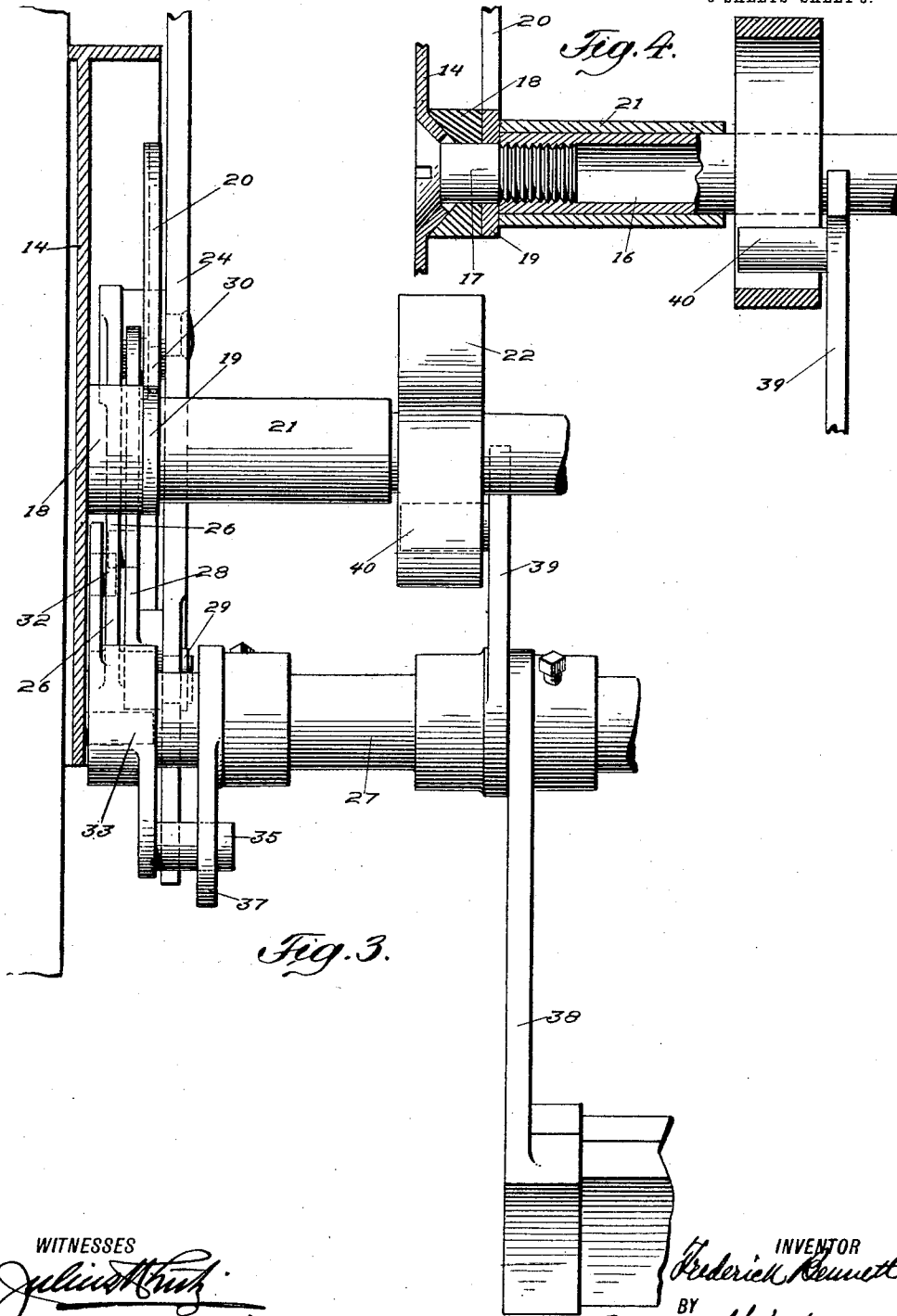
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

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CAR-SEAT.

1,113,402.

Specification of Letters Patent.

Patented Oct. 13, 1914.

Application filed February 25, 1911. Serial No. 610,867.

To all whom it may concern:

Be it known that I, FREDERICK BENNETT, of Ravenswood, county of Queens, State of New York, have invented certain new and useful Improvements in Car-Seats, of which the following is a full, clear, and exact specification, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a class of car-seats known as "walk-over" seats or those in which the back is reversed by a bodily motion across from one side of the seat to the other as distinguished from swinging on a pivot, or operating by a strictly turning movement.

The principal object of the present invention is to provide improved and entirely practical means for reversing the foot rest and cushion simultaneously with and by reason of the reversal of the back at the same time so arranging the parts that the reversing motion cannot be brought about by pressure on the cushion or foot rest. I attain this end and other results by certain peculiar features of construction and combinations of elements, which will be fully described hereinafter and particularly pointed out in the claims.

Reference is now had to the accompanying drawings, which illustrate, as an example, the preferred embodiment of my invention.

In these drawings Figure 1 is a sectional elevation of the invention; Fig. 2 is a side view with the center of the seat broken away to admit of presenting the view of the size of the sheet on which it is drawn; Fig. 3 is an enlarged side elevation of the working parts with which my improvement is concerned; and Fig. 4 is a detail section showing the preferred manner of mounting the tie rods.

10 indicates the cushion, 11 the back, 12 the outer or aisle pedestal, and 14 the inner supporting frame plate, which is secured to the side wall of the car and takes, at that point, the place of a pedestal. The arm 15 is arranged outside of the pedestal and the parts 12, 14 and 15 are rigidly fastened together to form a framing by means of tie rods 16. These are preferably secured to the parts 14 and 15, as shown in Fig. 4, by counter-sunk screws 17 threaded into the hollow tie rods.

18 indicates a spacing collar between the

frame element 14, for example, and a horizontally extending plate 19. One of these plates 19 is located at each end of the seat, said plates extending from one tie rod 16 to the other as shown best in Fig. 1. Each plate 19 is provided with an upwardly extended forked lug located at the middle of the plate and serving a function which will be hereinafter set forth. At each end of the tie rods 16 sleeves 21 are arranged directly adjacent to the plates 19.

In addition to serving as a tie between the stationary parts of the seat, the rods 16 also serve to carry the cushion 10 through the medium of two ribs 22, having slotted ends 23 receiving the tie rods, in such a manner that the ribs may slide from the position shown in Fig. 1 rightward within the limits of said slots 23. The slots are arranged at opposite inclinations so that in sliding the ribs 22 reverse their inclination, thus reversing the inclination of the seat or cushion 10 as will be understood from the prior art. Said ribs 22 are attached to and move with the cushion. The frame plate 14 serves as a means of mounting the various parts of the car seat at the wall end thereof, while the arm 15 carries as a part of it a similar or equivalent member which is not specifically illustrated. The mechanism is duplicate at each end of the seat so that the description in the singular will suffice. The back 11 has downwardly extending striker arms 24, one at each end and formed at their lower extremities with slots 25. Pivoted to these striker arms at a point considerably above their lower extremities are rocking arms 26, the lower ends of which are mounted to swing around a centrally located shaft 27. This shaft extends from one end of the seat to the other centrally between the tie rods 16 and below the plane thereof. A floating link 28 is pivoted to the arm 26 intermediate the ends of the arm and link and one end of said link 28 carries a pin 29 which slides in the slot 25 of the coacting striker arm 24, while the other end carries a pin 30 sliding in the adjacent forked block 20. This mounts the back so that it may pass with a bodily and sliding turning motion from one side to the other, the link 28 and arm 26 coacting to effect this purpose in the peculiar manner set forth in my co-pending application filed September 24, 1908, Serial No. 454599. Said arm 26 is

formed with a slot 31 disposed longitudinally thereof and receiving loosely the pin 32 of an elbow lever 33 fulcrumed at 34 to the frame plate 14, or to the equivalent part on the arm 15. The elbow lever has its second limb provided with a stud 35, which slides in the slot 36 formed in an arm 37 which is secured to the shaft 27. The foot rest 38 is also secured to said shaft 27 and in addition the shaft 27 fixedly carries an arm 39 having a pin 40 sliding in a vertical slot 41 in the rib 22.

I have before mentioned that the arm 26 swings idly around the center of the shaft 27, and therefore it does not directly impart any motion to the foot rest and cushion. However, the arm 26 in swinging, through the slot 31 and pin 32 imparts a rocking motion to the elbow lever 33 and owing to the disposition of this lever with respect to the arm 37 said arm is caused to rock upward to meet the movement of the arm 26. In other words, as the arm 26 swings from right to left (referring to Fig. 1) the arm 37 swings upward toward the oncoming arm 26. The arm 26 swings as described when the back 11 is moved from right to left and the described swinging of the arm 37 causes the foot rest 38 to swing from right to left while the arm 39 swings from left to right. Hence, when the back 11 is thrown over, for example, from right to left, the seat 10 is shifted from left to right to correspond to the new position of the back and the foot rest is thrown with the back so that it will be in position to accommodate the feet of the person of the seat next behind. The elbow lever and its connections, therefore, constitute a means for reversing the motion of the back and allows me, by a very simple mechanism, to bring about all of the necessary movements from the mere motion of the back. It will further be observed that owing to the relative arrangement of the elbow lever and the arm 37, the parts lock themselves and the seat cannot be reversed by pressure applied either to the foot rest or cushion.

Having thus described my invention what I claim as new and desire to secure by Letters Patent of the United States is:

1. In a car seat, the combination of a shiftable back, a swinging arm having operative connection with the back and moving therewith in direction corresponding to the

direction of movement of the back, means for mounting one end of the arm on a fixed center, a foot rest swinging around said center but at the side thereof opposite the side on which the arm is located, said foot rest adapted to shift with the back also in direction corresponding to the direction of movement of the back, and means for transmitting the movement of the arm reversely to the foot rest as described.

2. In a car seat, the combination of a shiftable back, a swinging arm having operative connection with the back and moving therewith in direction corresponding to the direction of movement of the back, means for mounting one end of the arm on a fixed center, a foot rest swinging around said center but at the side thereof opposite the side on which the arm is located, said foot rest adapted to shift with the back also in direction corresponding to the direction of movement of the back, and means for transmitting the movement of the arm reversely to the foot rest to shift the foot rest as described, said means including an elbow lever having sliding connection with said arm and with a part in connection with the foot rest.

3. In a car seat, the combination of a shiftable back, a swinging arm having operative connection with the back and moving therewith in direction corresponding to the direction of movement of the back, means for mounting one end of the arm on a fixed center, a foot rest swinging around said center but at the side thereof opposite the side on which the arm is located, said foot rest adapted to shift with the back also in direction corresponding to the direction of movement of the back, and means for transmitting the movement of the arm reversely to the foot rest to shift the foot rest as described, said means including an elbow lever having sliding connection with said arm and with a part in connection with the foot rest and an elbow lever being arranged to lock with the foot rest to prevent movement of the parts by pressure on the foot rest.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FREDERICK BENNETT.

Witnesses:

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H. E. RAALBE.