

P. SCHNEIDER.
 REVERSIBLE BACK REST FOR CAR SEATS.
 APPLICATION FILED MAR. 27, 1911.

1,011,499.

Patented Dec. 12, 1911.

2 SHEETS—SHEET 1.

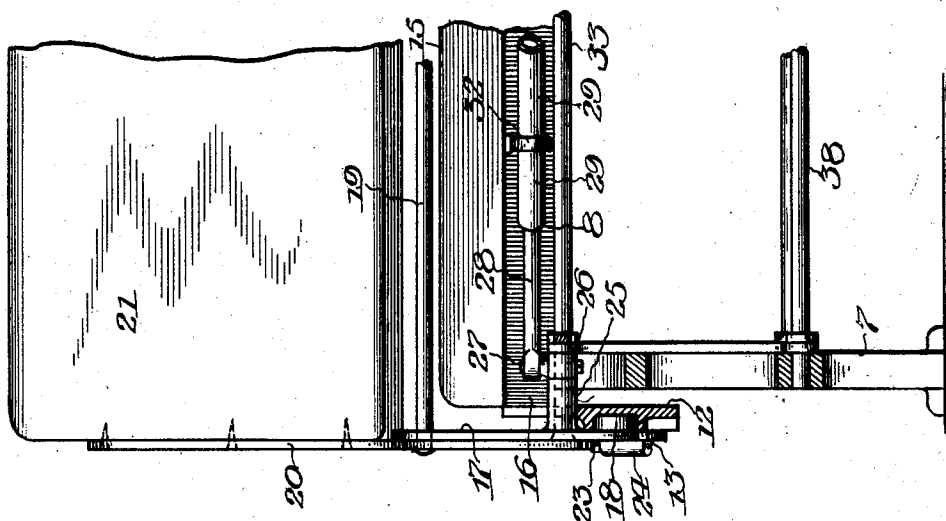


Fig. 2.

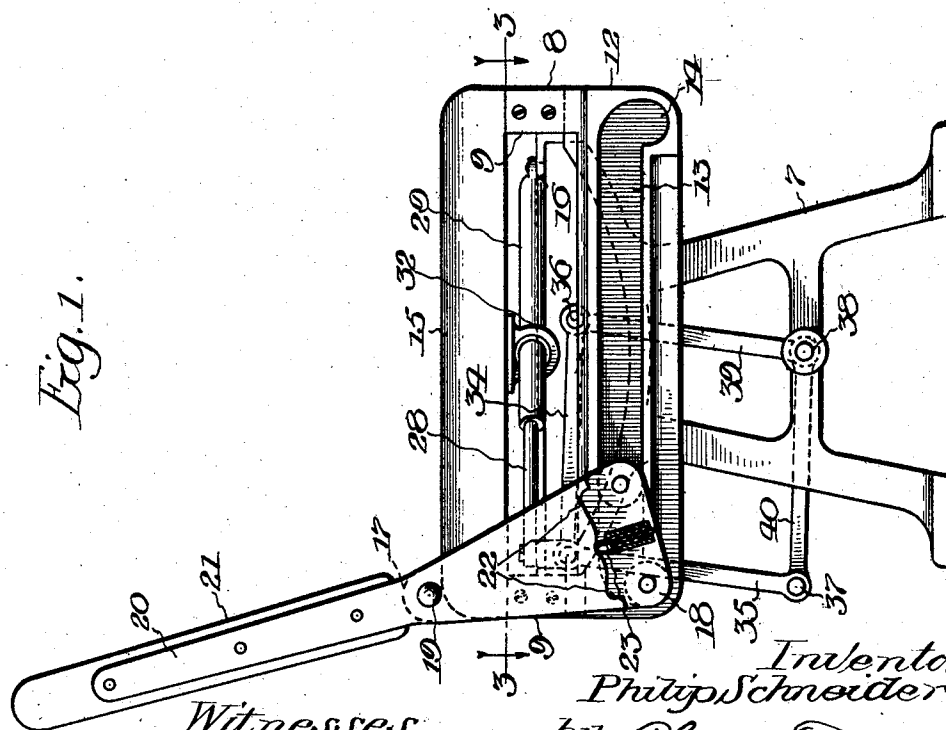


Fig. 1.

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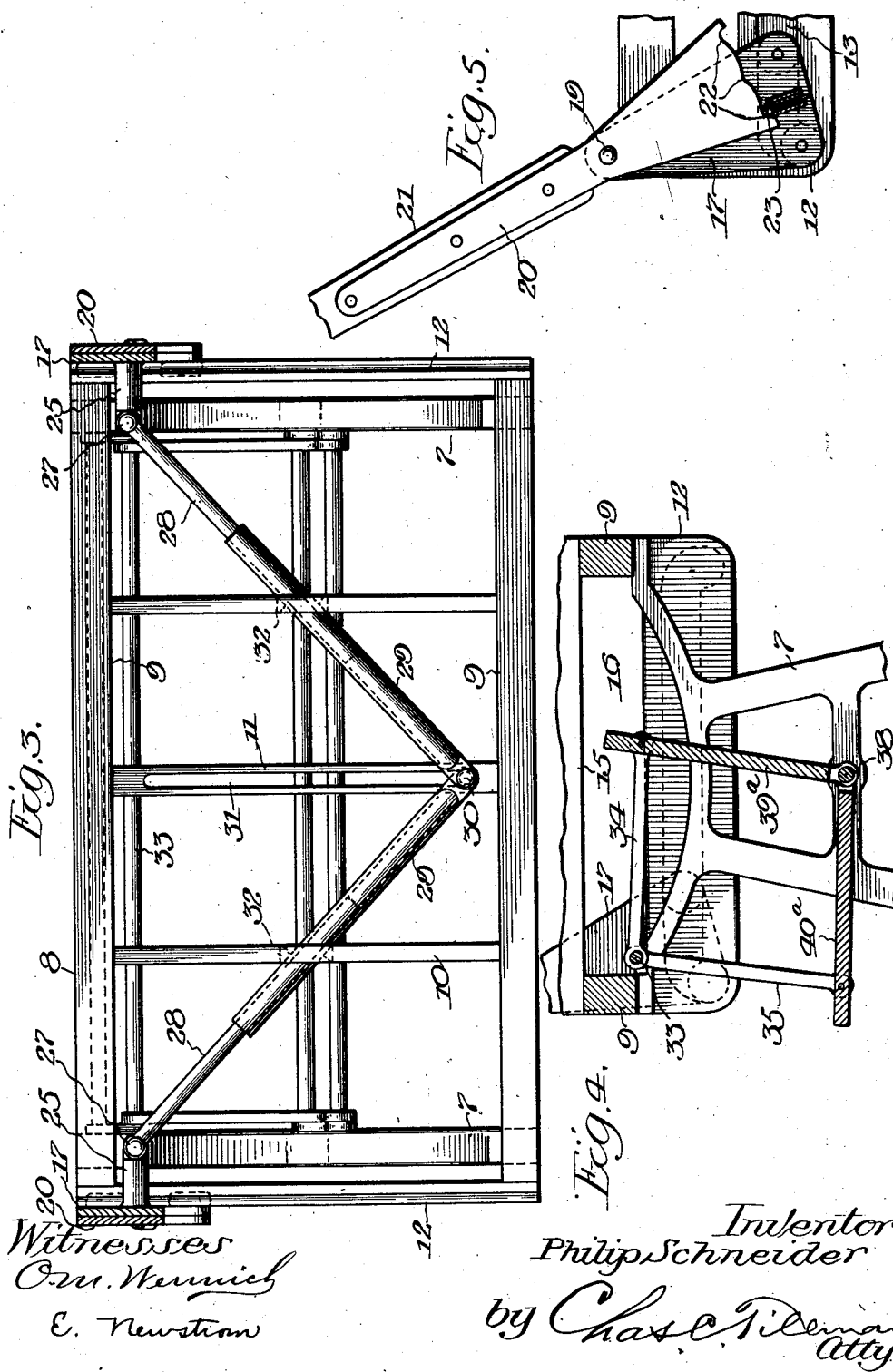
Inventor
 Philip Schneider
 by Chas. W. Munnich
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UNITED STATES PATENT OFFICE.

PHILIP SCHNEIDER, OF CHICAGO, ILLINOIS.

REVERSIBLE BACK-REST FOR CAR-SEATS.

1,011,499.

Specification of Letters Patent.

Patented Dec. 12, 1911.

Application filed March 27, 1911. Serial No. 617,214.

To all whom it may concern:

Be it known that I, PHILIP SCHNEIDER, 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 Reversible Back-Rests for Car-Seats, of which the following is a specification.

This invention relates to improvements in reversible back rests for car seats and it consists in certain peculiarities of the construction, novel arrangement and operation of the various parts thereof as will be hereinafter more fully set forth and specifically claimed.

The principal object of the invention is to provide a back rest for car seats which can be readily shifted from one side to the other of the car seat frame, the parts of which shall be so constructed and arranged with respect to one another, that the sides of the back rest will be equalized in their movements, or to be caused to move in perfect unison and with the least amount of friction, thereby preventing any tendency of the parts to bind in their movements.

A further object of the invention is to provide simple and efficient means for locking the back rest in a slightly inclined position at either side of the seat frame.

Other objects and advantages of the invention will be disclosed in the subjoined description and explanation.

In order to enable others skilled in the art to which the invention pertains, to make and use the same, I will now proceed to describe it referring to the accompanying drawings in which—

Figure 1, is a view in side elevation of a car seat showing a back rest embodying one form of the invention mounted thereon and located in a slightly inclined position at one side of the seat frame. Fig. 2, is a face view partly in section and partly in elevation of a portion of the car seat and a part of the back rest therefor. Fig. 3, is a plan view taken on line 3—3, of Fig. 1, looking in the direction indicated by the arrows. Fig. 4, is a view partly in section and partly in elevation of a portion of the seat frame and a part of the back rest therefor showing a modification in the construction of a portion of the equalizer or brace for the sides of the back rest, but with the telescoping brace members omitted, and Fig. 5, is a view in side elevation of a part of the seat frame and

a portion of the back rest showing the latter located in another inclined position from that shown in Fig. 1.

Like numerals of reference refer to corresponding parts throughout the different views of the drawings.

The reference numeral 7, designates the upright supports or legs of the seat frame, which are spaced apart and located in parallelism with one another near the ends of the frame. Mounted on the upper portion of the legs or supports 7, is the seat frame which is designated as a whole by the reference numeral 8, and consists of side rails 9, which are transversely united by intermediate cross pieces 10 and 11, and by end pieces 12, which latter are counterparts of one another, each of the members being provided on its outer surface with a horizontally disposed race 13, having at each of its ends a curved channeled recess 14, to receive bearing projections on the back rest as will be presently explained. The seat 15, which may be a cushion or of other construction, rests on the upper surface of the side rails 9, of the seat frame as well as on the intermediate cross pieces 10, thereof, and as shown, is located some distance above the upper surface of the end pieces 12, thereby affording horizontally disposed slots or spaces 16, for the operation of certain parts of the equalizer for the back rest. Located on the outer surface of each of the end pieces 12, is a vertically disposed plate or bar 17, each of which projects at its upper end above the upper surface of the seat 15, and is preferably widened at its lower portion. Mounted on the lower portion of each of the bars or members 17, are a pair of bearing projections 18, preferably rollers, which are journaled on the members 17, so as to travel in the races 13, of the end pieces 12, of the seat frame. The members 17, are connected together at their upper portions by means of a rod 19, which rod also unites the uprights 20, of the back rest 21, which uprights are secured to the ends of said rest, and each has its lower portion widened and its lower edge provided with a series of recesses 22, for the reception of a spring pressed bolt 23, which bolts and the springs which actuate them are located in tubular bosses 24, one of which is provided on the lower outer surface of each of the members 17, and between the bearing projections 18, thereon. Each of the mem-

bers 17, is provided on its inner surface at a point to project into the slot 16, of the seat frame, with a stub shaft 25, on each of which is mounted a collar 26, which has an upwardly extended projection 27, to each of which is pivotally secured at one of its ends a rod 28, which rods are located in guide members 29, which are preferably tubular in form as shown, and are connected together at their meeting ends by means of a pivot 30, which projects into a slot or guideway 31, in the intermediate brace bar 11, of the seat frame. As is clearly shown in Figs. 1, 2, and 3, of the drawings, the rods 28, and guide members 29, are horizontally disposed beneath the seat 15, and said members are movably supported on the brace bars 10, of the seat frame by means of ring bearings 32, the openings of which are preferably beveled as shown in Fig. 3, and are of sufficient size to permit of slight upward movement of said guide members as well as of reciprocating any pivotal movement of the same. Connecting the stub shafts 25, is a rod 33, which has pivotally mounted thereon near each of its ends a pair of links 34 and 35, which are pivotally connected at their other ends to rods 36 and 37, respectively, which latter rods extend from near the inner surface of one of the supporting legs 7, to near the inner surface of the other supporting leg 7, at a suitable point below the end pieces 12, is a shaft 38, on which is mounted near each of its ends inwardly of the legs 7, a frame consisting of two members 39 and 40, arranged at angles to each other but rigidly connected at their meeting ends. The other ends of the members 39 and 40, are pivotally connected to the shafts or rods 36 and 37, respectively.

In Fig. 4, of the drawings, is shown a modification in the construction of the equalizer for the back rest which consists in employing instead of the two pairs of members 39 and 40, near the ends of the shaft 38, a frame consisting of two members 39^a and 40^a, which are pivotally mounted at their apex on the shaft 38, and extend from near the inner surface of one of the supports 7, to the same surface of the other support for the seat frame. In this modified construction, instead of the pairs of links 34 and 35, being connected to the shafts 36 and 37, respectively, near their ends, said links are pivotally connected in pairs to the ends of the members 39^a, and 40^a, respectively.

From the foregoing and by reference to the drawings, it will be readily understood and clearly seen, that when the back rest is in the position shown in Fig. 1, of the drawings, the spring pressed bolts 23, will engage one of the recesses 22, on the lower

edges of the uprights 20, of the back rest and will lock the back rest in an inclined position, from which position it can be moved by grasping and forcing it in the proper direction in which operation it is apparent that the rounded portions between the recesses 22, will depress the spring bolts 23, so as to allow the members 20, to be tilted with respect to the members or bars 17, which carry the bearing projections 18, and which will in the movement of the back rest from one side of the frame to the other, travel in the races 13, therefor, until they reach the terminals 14, of said races, in which position one of each of the pairs of said projections will pass down into the terminals 14, thus in a manner locking the back rest. In the operation of shifting the back rest from one side of the frame to the other, it is apparent that the bars or members 17, and the uprights 20, will be braced by the members 28 and 29, as well as by the equalizing device consisting of the links 34 and 35, and the angular frames consisting of the members 39 and 40, in one instance, and the members 39^a, and 40^a, in the other. It is apparent that when using either of said constructions a foot rest will be provided for it is evident that in the construction shown in Fig. 1, the rods 36 and 37, will act as rests upon which the feet may be placed and that when the back rest is shifted from one side of the seat frame to the other the said rods will be raised or lowered alternately as the frames consisting of the members 39 and 40, are tilted on the shaft 38, which supports the same. When the modification shown in Fig. 4, is employed, it is manifest that the members 39^a, and 40^a, will be tilted on their support 38, so that they will alternately occupy substantially horizontal positions when they may be used as foot rests. As the guide members 29, are loosely supported in the ring bearings 32, it is evident that in the movement of the back rest the members 28, and 29, will telescope with one another and that the bearing rings 32, will act as fulcrums for the members 29, so that the pivot 30, of said members will travel back and forth in the slot 31, of the intermediate brace 11, of the seat frame in which operation it will be understood that the members 17, of the back rest will be held in such a way as to cause them to travel with a uniform and even movement on the end pieces of the frame.

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

1. The combination with a supporting frame having a horizontally disposed race on each of its ends, of an upright member movably mounted on each of the end pieces of the frame, equalizing means connecting said upright members and including a pair

of guide pieces pivotally connected together at one of their ends, a horizontal guideway for said pivot transversely and centrally located on the supporting frame, and members movably engaging said guide pieces and pivotally connected to said upright members, a pair of bearing projections on the lower inner portion of each of said upright members and extended into said races, and a back-rest having at each of its ends a downwardly depending upright portion connected to said upright members.

2. The combination with a supporting frame having a horizontally disposed race on each of its ends, of an upright member movably mounted on each of the end pieces of the frame, a rod connecting said upright members, a pair of guide pieces pivotally connected at one of their ends, a guideway for said pivot, a member movably engaging each of said guide pieces and pivotally connected to said rod, a shaft connecting the end pieces of the supporting frame, a pair of links pivotally mounted at one of their ends on the connecting rod of the upright members, an angular frame pivotally mounted on said shaft and having connection with the other ends of said links.

3. The combination with a supporting frame having a horizontally disposed race on each of its ends, of an upright member movably mounted on each of the end pieces of the frame, a rod connecting said upright members, a pair of guide pieces pivotally

connected at one of their ends, a guideway for said pivot, a member movably engaging each of said guide pieces and pivotally connected to said rod, a shaft connecting the end pieces of the supporting frame, an angular frame mounted on said shaft near each of its ends, rods connecting the members of said angular frames near their free ends, a pair of links pivotally mounted at one of their ends on the connecting rod of the upright members and similarly connected at their other ends to the rods on the angular frames, and a pair of bearing projections on the lower portion of each of said upright members and extended into said races.

4. The combination with a supporting frame having a horizontally disposed race on each of its ends, of an upright member movably mounted on each of the end pieces of the frame, a rod connecting said upright members, a pair of guide pieces pivotally connected at one of their ends, a guideway for said pivot, a member movably engaging each of said guide pieces and pivotally connected to said rod, a pair of links pivotally mounted at one of their ends on the connecting rod of the upright members, and an angular frame pivotally mounted on the supporting frame and having connection with the other ends of said links.

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Witnesses:

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