T. D. OWLER AND H. S. GORDON.

CAR SEAT.

APPLICATION FILED OCT. 19, 1921.

1,429,368.

Patented Sept. 19, 1922.

FIG. 5.

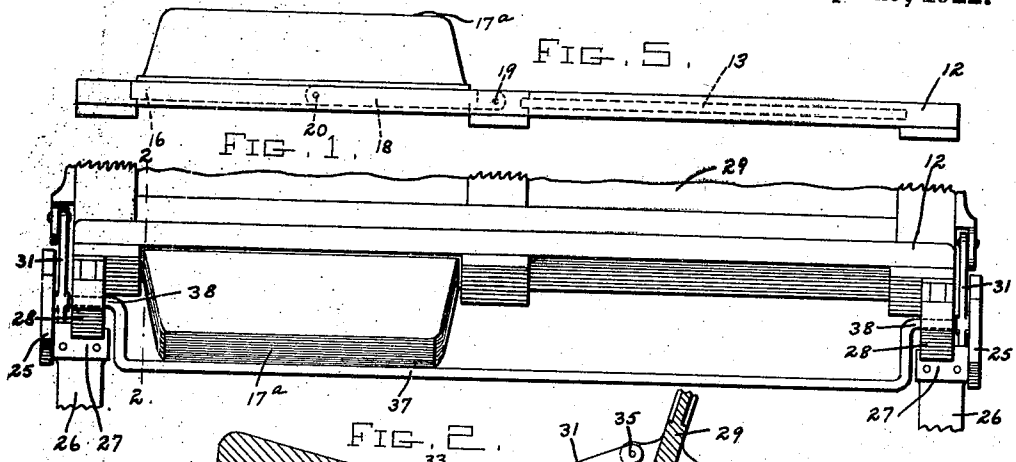


FIG. 1.

FIG. 2.

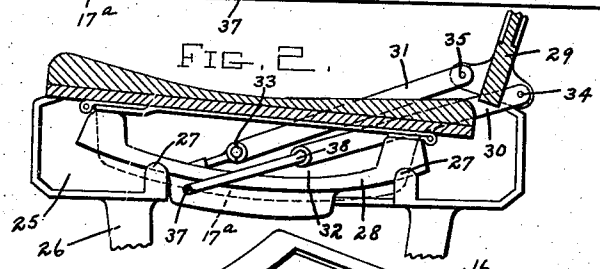


FIG. 3.

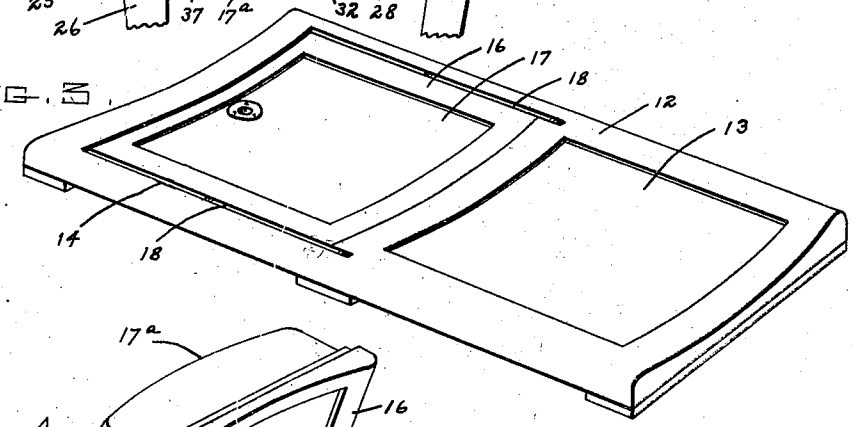
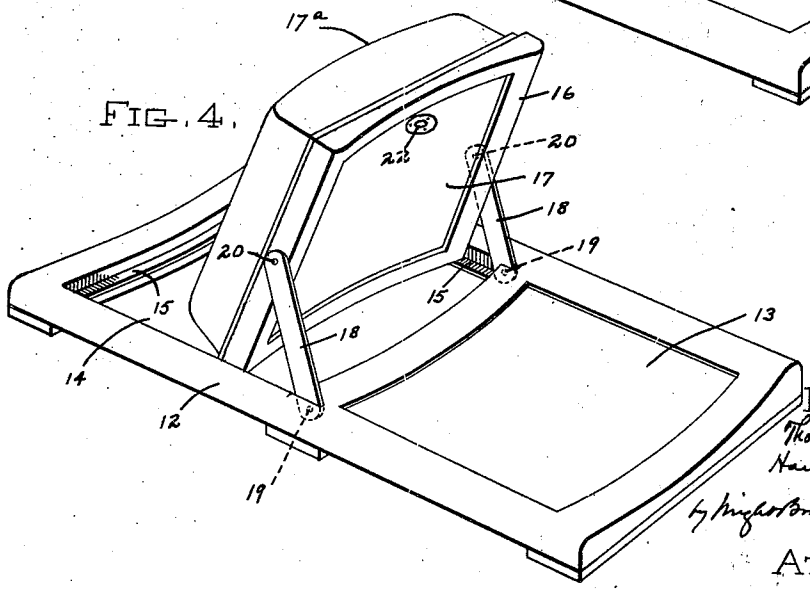


FIG. 4.



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UNITED STATES PATENT OFFICE.

THOMAS D. OWLER AND HARRY S. GORDON, OF WAKEFIELD, MASSACHUSETTS, ASSIGNORS TO HEYWOOD-WAKEFIELD COMPANY, OF WAKEFIELD, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

CAR SEAT.

Application filed October 19, 1921. Serial No. 508,671.

To all whom it may concern:

Be it known that we, THOMAS D. OWLER and HARRY S. GORDON, citizens of the United States, residing at Wakefield, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Car Seats, of which the following is a specification.

This invention relates to car seats for so-called one man street cars, and has for its object to provide a convertible seat adapted to be adjusted either for the use of two passengers sitting at the same height, or for the use of a motorman sitting at a higher level, the seat when adjusted for the use of a motorman, presenting two seat faces one higher than the other.

Of the accompanying drawings, Figure 1 is a front elevation of a car seat embodying the invention, portions of the back and portions of the supporting structure being broken away.

Figure 2 is a section on line 2—2 of Figure 1.

Figure 3 is a perspective view showing the seat bottom adjusted for the use of two passengers.

Figure 4 is a view similar to Figure 3, showing the invertible seat bottom section displaced.

Figure 5 is an edge view showing the seat bottom adjusted for the use of a motorman.

The same reference characters indicate the same parts in all the figures.

The seat section of a car seat which comprises suitable end supports and a back, is shown separately by Figures 3, 4 and 5, and comprises an outer oblong frame 12 having a fixed seat face 13 at one end portion, and is formed at its opposite end portion to surround an opening 14. The frame is provided with upwardly facing rests or ledges 15 within said opening. The said section includes in invertible inner frame 16, formed to bear removably on the rests 15, a low seat face 17 substantially flush with one side of the inner frame, and an offset seat face 17^a projecting from the opposite side of the inner frame. The inner frame 16 is loosely connected with the outer frame 12 by suitable means, preferably metal links 18, formed to lie between adjacent edges of the outer and inner frames at opposite sides of the opening 14, and connected with the outer frame 12 at one end of the opening 14 by inner pivots 19 and to the inner frame midway between the ends thereof by outer pivots 20. The said links and pivots permit the elevation of the invertible inner frame above the outer frame, without displacement of the latter, the inversion of the inner frame, when so elevated, and the downward movement of the inner frame into the opening, the links swinging with the inner frame into and out of the opening, and the inner frame being supported by the rests 15 within the opening either side up. The inner frame is adapted to occupy an operative position with the low seat face 17 substantially flush with the fixed seat face 13, as shown by Figure 3, and another operative position with the offset seat face 17^a raised above the fixed seat face, as shown by Figure 5. When the seat section is adjusted, as shown by Figure 3, it is adapted for the use of two passengers sitting side by side at the same height. When the seat section is adjusted as shown by Figure 5, the offset face 17^a is adapted to support a motorman in a position elevated above the fixed seat face 13, the latter adapted to be used, if desired, by a passenger. When the inner frame is displaced, as indicated by Figure 4, it is adapted to be inverted by swinging it on the pivots 20, so that when the inner frame is in its operative position, either of its seat faces may face upwardly.

The offset seat face 17^a is preferably the surface of an elastic cushion, which is suitably attached to the inner frame and may be of any suitable construction and provided with any suitable arrangement of springs.

The seat faces 13 and 17 may be of any suitable character. As here shown, they are supposed to be unyielding, the face 13 being suitably attached to and supported by the outer frame 12, while the seat face 17 is suitably attached to and supported by the inner frame 16. To facilitate the manipulation of the invertible inner frame, we provide an orifice in which a finger of the operator may be inserted to raise the inner frame from the rests 15, said orifice being preferably the bore of a metallic bushing 22 inserted in the seat face 17.

When the seat section is adjusted for the use of two passengers, the offset seat face 17^a projects below the outer frame 12, as shown by Figure 1, and by dotted lines in Figure 2.

Figures 1 and 2 show portions of a reversible car seat which includes a fixed supporting structure having fixed end portions 25 mounted on standards or supports 26 of any suitable character. Said end portions are provided with guides 27 on which the usual curved rockers 28 are longitudinally movable. The described seat section is connected with and supported by the rockers 28, as shown, and is transversely inclined, as indicated by Figures 1 and 2, when the seat as a whole including the usual walk-over back 29 is in condition for use. Said back is supported, as usual, by two pairs of levers 30 and 31, the lever 30 being fulcrumed at 32 to an end member 25 and the lever 31 being fulcrumed at 33 to the same member. The lever 30 is pivoted at 34 to an ear projecting from one side of the back 29, and the lever 31 is pivoted at 35 to the ear projecting from the opposite side of the back.

The above-described mechanism is common and well-known and as thus far described is not claimed by us.

It is usual in seat mechanism of this character to connect the lever 30 of the pair at one end of the seat with the lever 30 at the opposite end, by a rigid connecting rod, which extends lengthwise of the seat under the seat section. The function of said rod is to cause the levers at one end of the seat to move in unison with the levers at the opposite end when force is exerted on the back 29 to move the same across the seat section or from one edge of the latter to the opposite edge. Heretofore the connecting rod has been located in such close proximity to the under side of the seat section that when said section is equipped with the offset seat face 17a above-described it cannot be successfully used because there is not sufficient room between the connecting rod and the frame of the seat bottom for the reception of the offset face 17a.

To enable the connecting rod to perform its function without interference with the offset seat face 17a, we off-set the main portion 37 of said rod from the end portions 38 which are rigidly joined to the levers 30. The main portion 37 is, therefore, suitably spaced from the under side of the seat section so that the connecting rod may perform its function without interfering with the offset seat face 17a, as indicated by Figure 1 and by full and dotted lines in Figure 2.

We claim:

A car seat comprising end supports and a seat section including an oblong outer frame, adapted to be maintained in an operative position by said supports, a fixed seat face occupying and filling one end portion of the frame, and adapted to support a passenger, the other end portion of the frame being formed to surround an opening, and provided with upwardly facing rests within said opening, an invertible inner frame formed to occupy said opening and bear, either side up, on said rests, so that the inner frame is adapted to occupy either of two operative positions within said opening, said inner frame being provided with two oppositely facing seat faces, one of which is substantially flush with the fixed seat face, and is adapted to support another passenger when the inner frame is in one of said positions, the other face being offset and formed to be inoperatively located below the outer frame when the inner frame is in one of said positions, and to project above the outer frame and support a motor man when the inner frame is in the other operative position, parallel links formed to lie between adjacent edges of the outer and inner frame at opposite sides of said opening, inner pivots connecting said links with the outer frame at one end of said opening, whereby the links are adapted to swing into and out of the opening, and outer pivots connecting the swinging ends of the links with the inner frame, midway between the ends of the latter, said links loosely anchoring the inner to the outer frame, and permitting the elevation and upward displacement of the inner frame, without displacement of the outer frame, the inversion of the inner frame when the latter is elevated.

In testimony whereof we have affixed our signatures.

THOMAS D. OWLER.
HARRY S. GORDON.