J. E. KILBURN.

STATIONARY CAR SEAT.

APPLICATION FILED JUNE 2, 1915.

1,186,910.

Patented June 13, 1916.

2 SHEETS—SHEET 1.

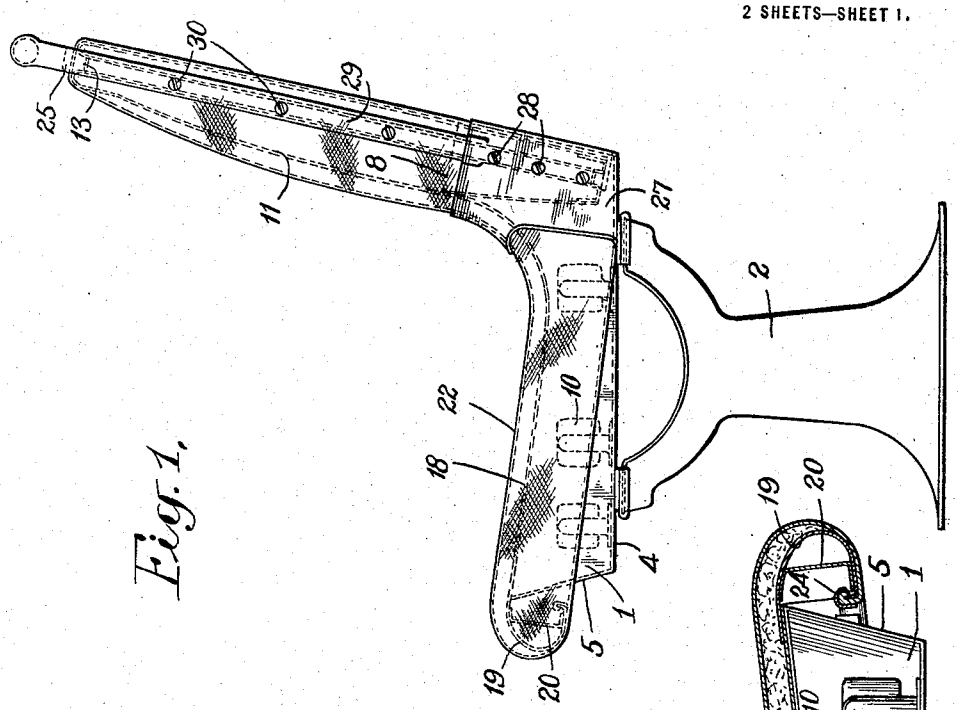


Fig. 1.

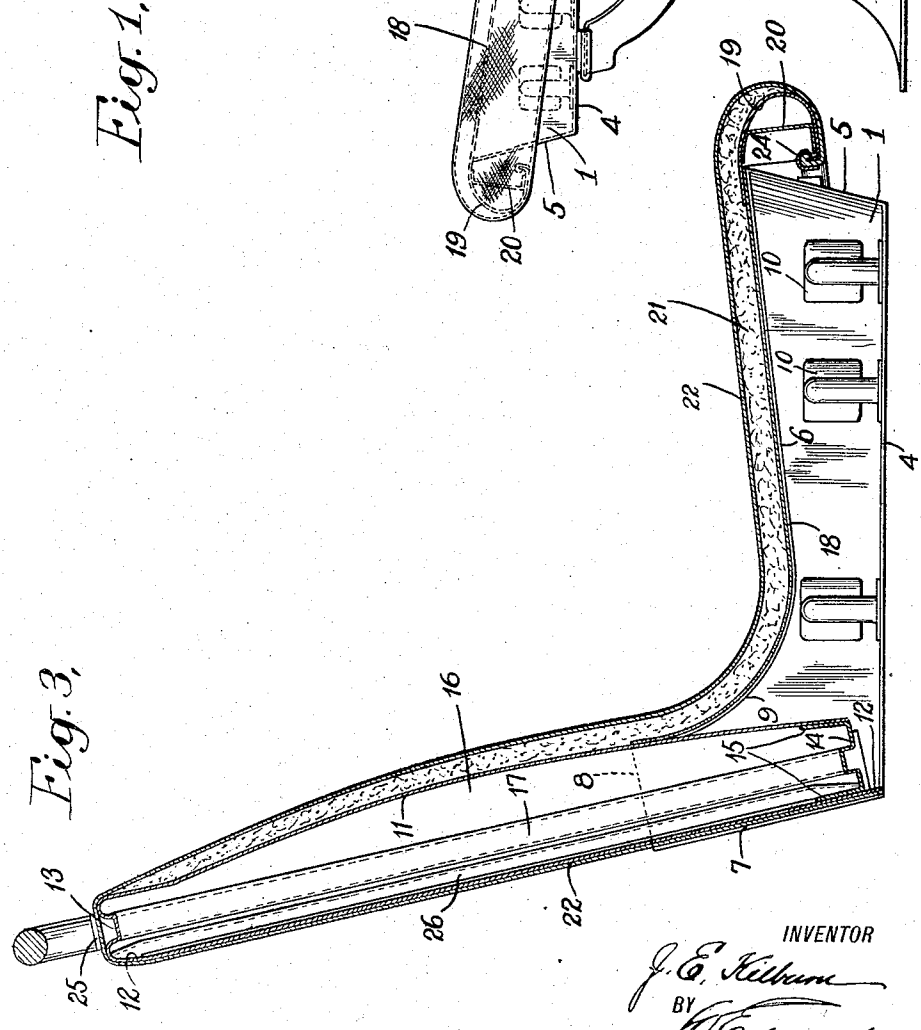


Fig. 3.

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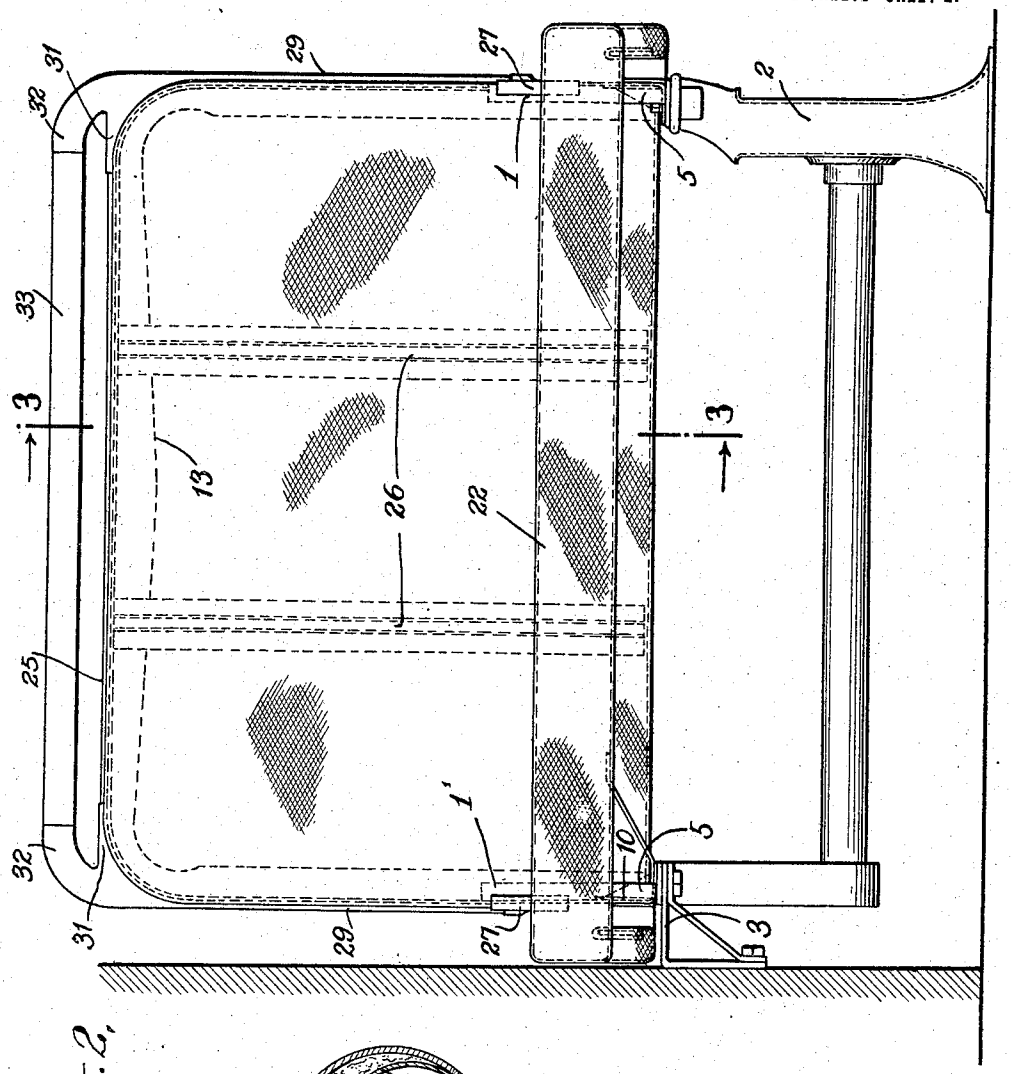


Fig. 2.

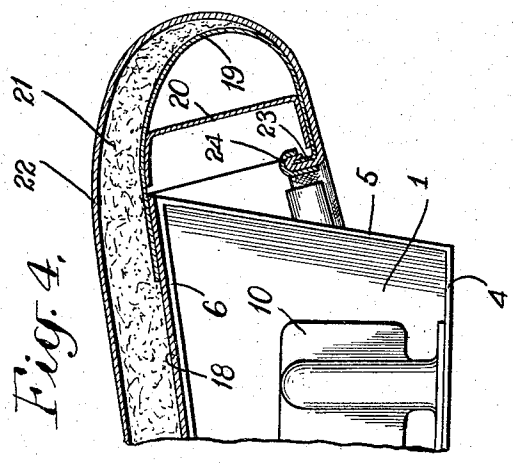


Fig. 4.

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STATIONARY CAR-SEAT.

1,186,910. Specification of Letters Patent. **Patented June 13, 1916.**

Application filed June 2, 1915. Serial No. 31,650.

To all whom it may concern:

Be it known that I, JOHN EDWIN KILBURN, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Stationary Car-Seats, of which the following is a specification.

My invention relates to a car-seat of the stationary type, that is, one in which a back is not movable across the seat. The construction embodies a seat and back formed of sheet steel members secured together and covered with suitable upholstery, the advantages of lightness, strength and simplicity of design being secured. Briefly, the construction may be described as comprising a pair of seat-ends having an upwardly extending portion at the rear and a back frame substantially of box-section, a metal sheet forming the seat, resting upon the top flanges of the seat-ends and being upwardly curved at the rear to lie against the front sheet of the back member. The back member is secured at its lower ends between flanges on the seat-ends. A channel-shaped front rail extends across the front of the seat in front of the seat-ends and has a curved metal sheet extending about the same and secured to the metal seat member to form the front edge of the seat. Suitable upholstery is secured about this edge-forming member, over the seat member and about the back frame, suitable reinforcing means being employed at the junction of the seat and the back at the ends thereof, and about the ends and over the top of the back.

The objects of my invention are to provide a structure of the character indicated having the features and advantages hereinafter more fully described and particularly pointed out in the appended claims.

In order that a clearer understanding of my invention may be had, attention is hereby directed to the accompanying drawings forming part of this application and illustrating certain embodiments thereof.

In the drawings, Figure 1 represents an end elevation of my improved seat, Fig. 2 is a front elevation of the same, the seat being mounted upon a pedestal and a wall-bracket in both figures, Fig 3 is a vertical section on line 3—3 of Fig. 2, on an enlarged scale and Fig. 4 is an enlarged vertical sectional detail of the front edge of the seat and one of the seat supports.

Referring to the drawings, the seat-ends 1, 1′ are mounted respectively on the pedestal 2 and the wall-bracket 3 at the aisle end and the wall end respectively of the seat, it being understood that a pedestal, such as is shown at 2, may be substituted, if desired, for the wall-bracket 3. The seat-ends 1, 1′ are preferably formed of sheet steel having vertical webs as shown, horizontal bottom flanges 4, front flanges 5, top flanges 6, and upwardly extending rear flanges 7. The rear portions of the seat-ends extend upwardly as shown, to the upper rear edges 8, the top flanges 6 being curved upwardly and rearwardly, as shown at 9. The bottom horizontal flanges 4 of the seat-ends are suitably secured to the top surfaces of pedestal 2 and wall-bracket 3. Suitable reinforcing or stiffening members 10 are preferably employed to stiffen the vertical webs of the seat-ends.

The back member comprises a sheet of metal pressed to shape to provide a front sheet 11 and a rear sheet 12 joined by a top portion 13, which preferably is pressed to a channel-shape as shown, for the sake of stiffness. A bottom member 14 having an inwardly extending channel pressed therein has upwardly extending flanges 15 secured to the inner surfaces of sheets 11 and 12 of the back member adjacent the lower edges thereof. The back member is completed by sheet-metal end members 16 similar to bottom member 14 and having inwardly directed channels 17 formed therein for the sake of stiffness.

The seat member 18 comprises a metal sheet secured upon the top flanges 6 of the seat-ends and preferably extending beyond the same at each end as shown. Seat member 18 is curved upwardly and rearwardly at its rear edge to conform to the curvature 9 of the flanges upon which it rests, the upper rear portion of member 18 contacting and being secured to the front surface of the forward sheet 11 of the back support. The latter is also secured to the rear portions of flanges 6 of the seat ends. The rear sheet 12 of the back member extends within the rear flanges 7 of the seat-ends.

At the forward edge of the structure a metal sheet 19 is secured to the plate 18 ad-

jacent the forward edge of the latter and curved downwardly in front of the seat-end supports 1 and 1′ to establish the desired curvature for the forward edge of the seat. Sheet 19 may be secured to sheet 18 in any desired manner, as by spot-welding, this applying equally to the junction of other sheets previously referred to. A channel-bar 20 constituting a front rail for the seat is secured within the curved portion of sheet 20 to hold the latter to its desired curvature, channel-bar 20 extending throughout the length of the seat.

The back and seat frames being secured together in the manner described are covered with upholstery which may suitably comprise a layer of felt 21 positioned upon the front sheet 11 of the back frame, sheet 18 of the seat and the front edge forming member 19 of the seat. Ratan or other suitable covering 22 is stretched over the felt, and around the top portion 13 of the back frame and over the rear surface of the back sheet 12 of the back frame. The forward edge of the upholstery is bent around the upturned edge 23 of channel-bar 20 to which it is secured by a suitable metal clip 24. A metal strip 25 extends over the ratan along the top of the back frame and may be secured as by screws through the ratan covering 22 to the channel portion 13 of the back frame. Covering 22 is secured at its lower rear edge to the lower rear edge of sheet 12 of the back frame.

The back sheet 12 of the back frame is preferably stiffened by a number of vertical reinforcing members 26 which preferably are of channel formation similar to the member 14 shown in Fig. 3. A reinforcing plate 27 is employed at each end of the structure adjacent the junction of the back frame with the seat. These plates are preferably of approximately the shape shown, have their edges bent over the ratan at the front and rear as indicated and are secured through the ratan to the end members of the back frame by suitable means, such as screws 28. A metal strip 29 is secured to each end of the back by suitable means, such as screws 30, extending through the ratan into the end members of the back frame. Strips 29 are shaped, as shown at 31, to extend around the upper corners of the back and abut against the ends of top strip 25. The back is preferably formed with rounded upper corners as shown, although it may, of course, be given square corners if desired. Strips 29 are preferably provided with upwardly and inwardly curved extensions 32 between which the hand-rail 33 is secured.

It will be obvious from the above description that an extremely light and rigid seat of attractive appearance is presented by the construction described.

It should be understood that my invention is not limited to the exact details of construction described, but that reasonable equivalents of the same are included within my invention.

Having now described my invention, what I claim as new therein and desire to secure by Letters Patent is as follows:—

1. In a car-seat, the combination of a back frame comprising a sheet of metal pressed to form a three-sided inclosure including front and rear surfaces, a pair of end seat supports, a sheet-metal seat member secured on said supports and at its rear to the front sheet of said back frame, a front seat-edge-forming member and continuous upholstery extending around said edge-forming member, over said metal seat member, and around the front, top and rear of said back frame, substantially as set forth.

2. In a car-seat, the combination of a pair of end-seat supports having vertical web portions and top flanges upwardly curved at the rear, a sheet-metal seat member secured on said flanges, and shaped to conform thereto, a back frame comprising a front sheet extending behind and secured to the rear upwardly curved portion of said seat member, and a rear sheet, and bracing means between said front and rear sheets, substantially as set forth.

3. In a car-seat, the combination of a pair of end seat supports having vertical web portions and top flanges upwardly curved at the rear, a sheet-metal seat member secured on said flanges, and shaped to conform thereto, and a sheet-metal back frame of box shape having a front sheet extending behind and secured to the rear portions of said top flanges, said end supports having upwardly extending rear flanges and said back frame having a back sheet secured to said rear flanges, substantially as set forth.

4. In a car-seat, the combination of a pair of sheet-metal end-seat supports having vertical web portions, horizontal bottom flanges and top and upwardly extending rear flanges, said supports having upwardly extending rear portions, a seat member secured on said top flanges, a box-shaped back-member secured between said rear flanges and the upwardly extending rear portions of said top flanges, and upholstery extending over said seat member and about said back member, substantially as set forth.

5. In a car-seat, the combination of a pair of flanged sheet-metal seat-ends, a sheet-metal seat member secured thereon and curved upwardly at the rear, a box-shaped sheet-metal back member secured to said seat ends with its front sheet contacting the upper rear end of said seat member, a front rail secured to said seat-ends, an edge-forming member extending partly around said rail, upholstery extending around said edge-

forming member, over said seat member and around said back member, and reinforcing plates secured to the seat-ends and back frame adjacent the rear portion of said seat-ends, substantially as set forth.

6. In a car-seat, the combination of a pair of flanged sheet-metal seat ends, a sheet-metal seat member secured thereon and curved upwardly at the rear, a box-shaped sheet-metal back-member secured to said seat-ends with its front sheet contacting the upper rear end of said seat member, a front rail secured to said seat ends, an edge-forming member extending partly around said rail, said seat-ends having flanges within which the ends of said back member are secured, and said seat member extending beyond said seat-ends at each end, and upholstery extending around said edge forming member, over said seat member and around said back member, substantially as set forth.

This specification signed and witnessed this 29th day of May, 1915.

JOHN EDWIN KILBURN.

Witnesses:
WM. J. EARNSHAW,
CLARENCE E. HUNTER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."