

March 20, 1934.

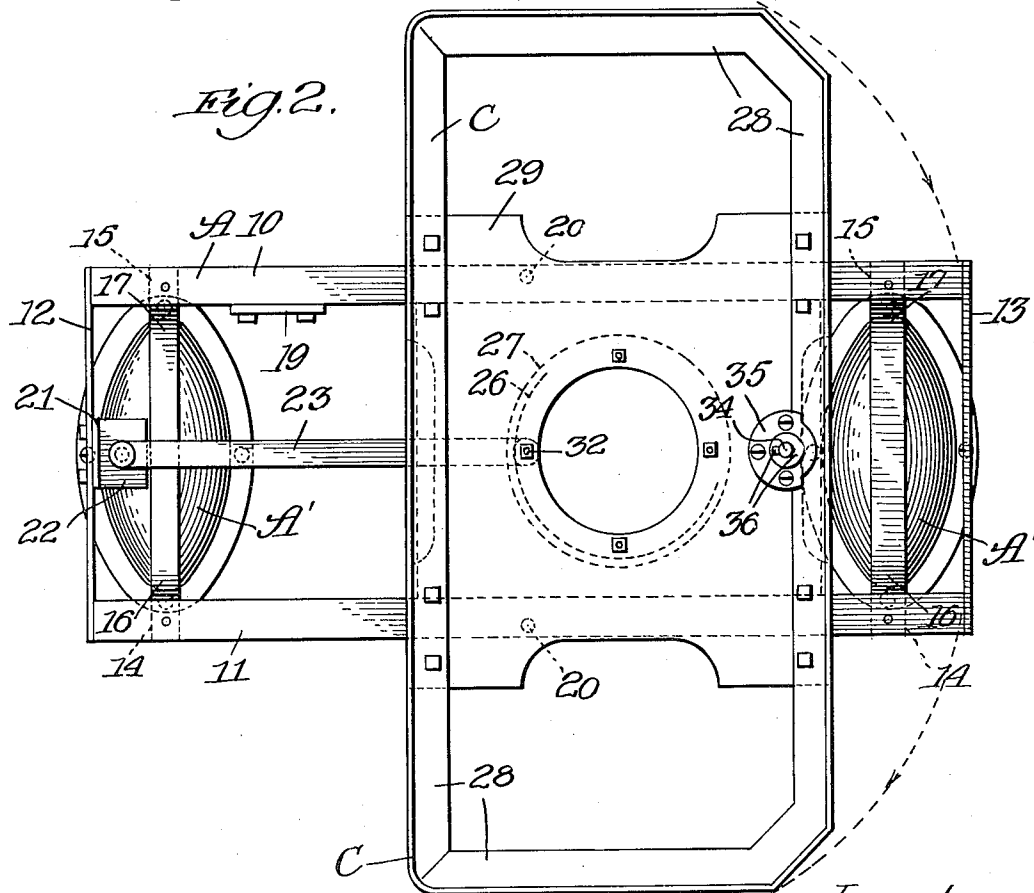
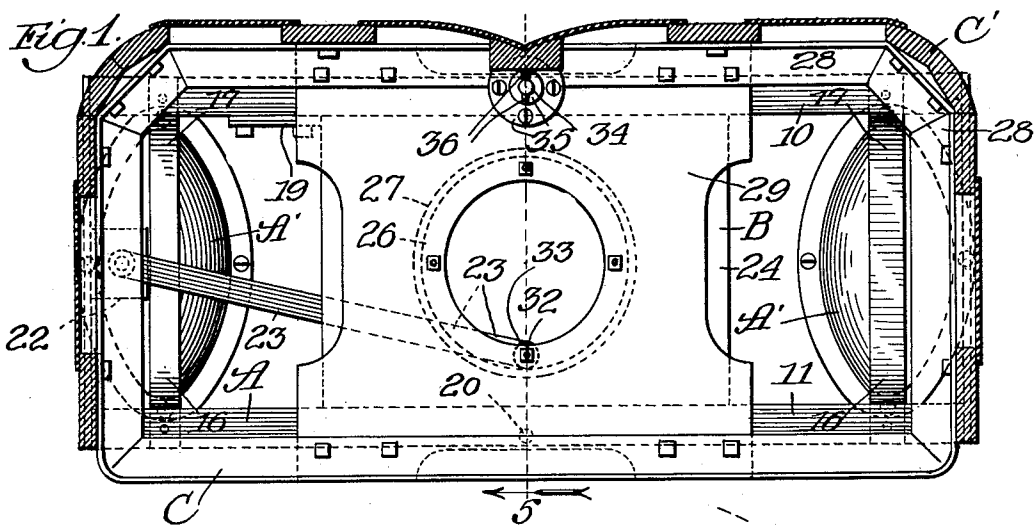
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1,951,982

TRANSPORTATION SEAT

Filed May 23, 1932

3 Sheets-Sheet 1



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3 Sheets-Sheet 3

Fig. 6.

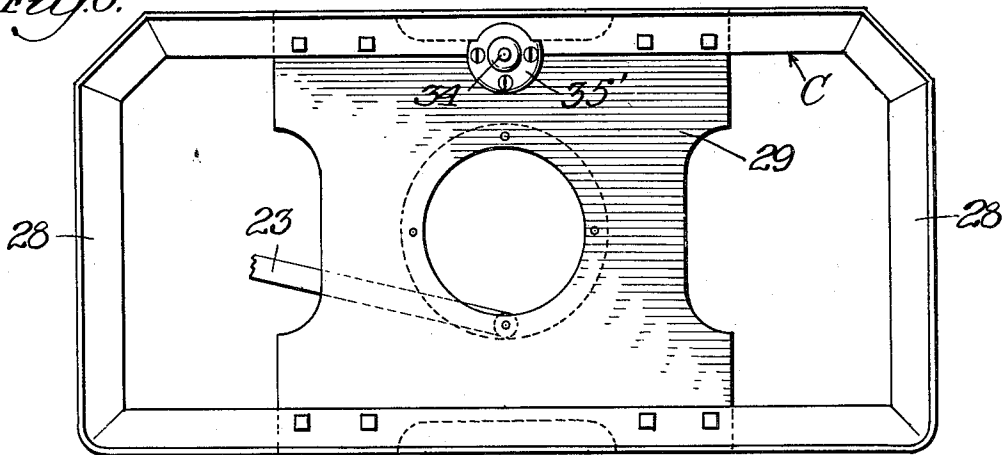


Fig. 7.

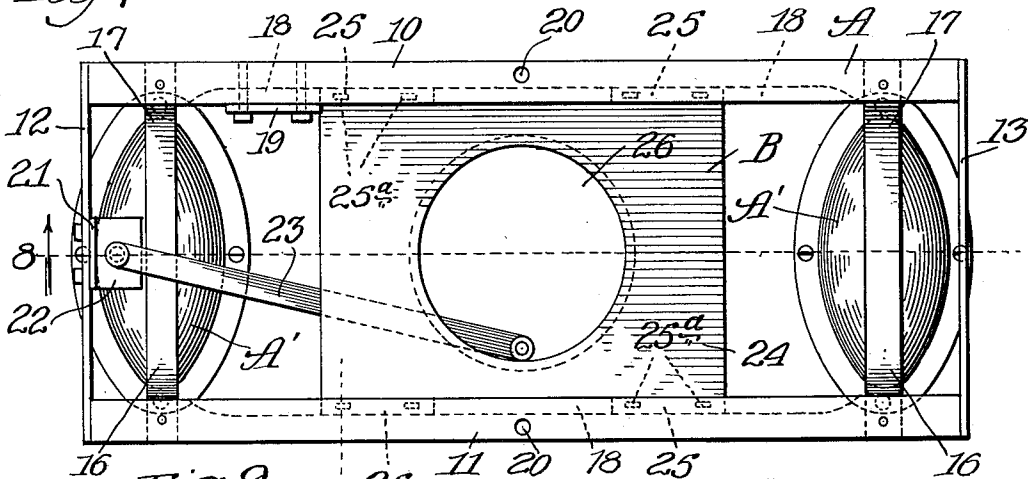


Fig. 9.

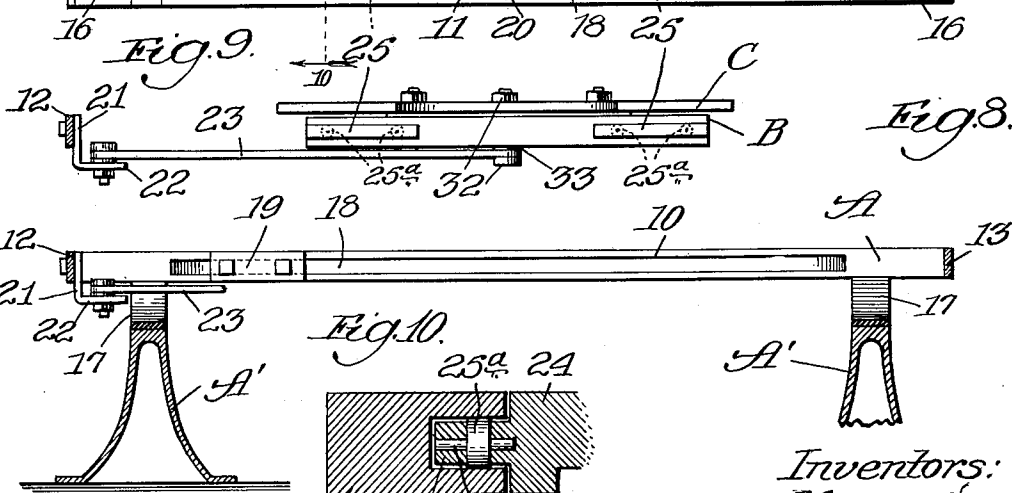


Fig. 10.

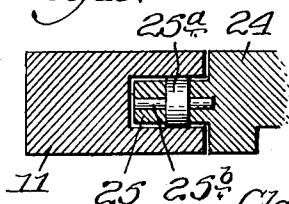


Fig. 8.

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UNITED STATES PATENT OFFICE

1,951,982

TRANSPORTATION SEAT

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7 Claims. (Cl. 155—96)

This invention relates particularly to a transportation seat adapted for use in railroad coaches and buses, although the invention may be employed elsewhere.

5 The primary object is to provide an improved seat of simplified construction which can be reversed in any direction and which, in the operation of reversing the seat, will be laterally shifted. Other objects and advantages will appear as the specification proceeds.

10 The invention is illustrated in a preferred embodiment in the accompanying drawings in which:

15 Figure 1 is a plan sectional view of a seat embodying my invention, the section being taken as indicated at line 1 of Fig. 3; Fig. 2, a plan view of the base and seat frame members, the seat frame being turned at right angles to the base member; Fig. 3, a side view in elevation; Fig. 4, a broken detail and part sectional view, the section being taken as indicated at line 4 of Fig. 3; Fig. 5, an enlarged sectional view, the section being taken as indicated at line 5 of Fig. 1; Fig. 6, a plan view of the seat frame member; Fig. 7, a plan view of the base member equipped with the shiftable carriage; Fig. 8, a sectional view, the section being taken as indicated at line 8 of Fig. 7; Fig. 9, a side view in elevation of the carriage member removed from the base structure; and Fig. 10, an enlarged sectional view, the section being taken as indicated at line 10 of Fig. 7.

20 In the preferred embodiment illustrated, A represents the base structure carried by the standards or pedestals A'; B represents a carriage member slidably mounted upon the base A; and C represents a seat frame pivotally carried by the carriage member B.

25 The base A may be of any suitable construction. As illustrated, it comprises a pair of spaced longitudinal beams 10 and 11 which are connected at their ends by cross strips 12 and 13. The longitudinal beams 10 and 11 are supported by flanges 14 and 15 of arms 16 and 17 with which the standards A' are provided. As shown more clearly in Figs. 5, 7 and 8, the beams 10 and 11 are provided on their inner sides with horizontal grooves 18 adapted to serve as a track for the carriage B as will be hereinafter described. As shown in Figs. 7 and 8, one of the grooves is provided near its end with a stop 19. Each of the longitudinal beams 10 and 11 is provided centrally at a point behind the grooves 18 with a locking recess 20. Secured to the cross strip 12, which joins the beams 10 and 11 at one end, is a depending bracket 21 provided with a horizontal

flange 22. To the flange 22 is pivotally secured a guide link 23.

The carriage B may also be of any suitable construction. As illustrated, it comprises a metal plate 24 equipped on each side with a pair of spaced flanges or runners 25 which engage the grooves 18 of beams 10 and 11. In order to eliminate rattles or play and to provide an easy sliding motion, the runners 25 are preferably equipped with rollers 25^a mounted upon pins or shafts 25^b. As shown more clearly in Fig. 7, the plate 24 is provided centrally with a large circular opening 26. Adjacent the aperture and on the under side of the plate is an annular recess 27.

30 The seat frame C may also be constructed in any suitable form. As illustrated more clearly in Fig. 6, it is shown equipped with a perimetric frame 28 to which is secured a centrally disposed plate 29. As more clearly shown in Fig. 5, the plate 29 is centrally apertured and is provided with an annular ring extension 30 which extends into the opening 26 of carriage B. In order to secure the plate 29 to the carriage plate 24, a retaining ring 31 which is received within the recess 27 of the plate 24 is bolted to plate 29. With this construction, the plate 29 of seat frame C is rotatably secured to the slidable block or carriage B.

35 The guide link 23, which is pivotally secured at one end to the fixed flange 22 of the base structure, may be pivotally attached to any desired portion of the carriage or the seat structure carried thereby. In the illustration given, one of the bolts which is employed to secure the retaining ring 31 to plate 29 is provided with a shank extension 32 to which the end 33 of the link 23 is secured. The link 23 is preferably of such length that it will lie in the position shown in Figs. 1 and 7 when the carriage B is in engagement with the stop 19.

40 In order to lock the seat in either of the reversible positions, the seat frame C is equipped with a spring-urged plunger 34 which is adapted to enter either of the locking recesses 20. The plunger 34 is reciprocally guided within a casing 35 carried by the perimetric frame 28 of the seat frame C. At its upper end, the plunger 34 is provided with a transverse hole through which extends the end of actuating rod 36. As shown more clearly in Figs. 4 and 5, the rod 36 extends upwardly from the plunger 34 and at a slight rearward angle. The seat back C' carried by the seat frame C, as shown more clearly in Figs. 3 and 4, preferably is cut away along its top central portion to provide a recess 37, the recess 37

being adapted to house and shelter the handle 38 with which rod 36 is equipped. As shown in Fig. 4, the seat back C' is equipped near its top with a guide bracket 39 which is apertured to receive rod 36.

In the operation of the seat, when it is desired to reverse the position of the seat shown in Fig. 1, the handle 38 is raised to withdraw the locking plunger 34 from engagement with locking recess 20 and the seat frame C is rotated in the direction of the arrows shown in Fig. 2. As the seat frame C is being brought to the position shown in Fig. 2, the link 23 causes the sliding block or carriage B to move toward the opposite end of the base, thus enabling the end of the seat frame C to clear the adjacent wall of the railroad car, bus or the like. As the reversing movement is completed by bringing the other end of the seat to a position adjacent the wall, the link 23 causes the sliding block to approach the stop 19 and thus to carry the seat frame C toward the wall. As the seat frame reaches the reversed position, the plunger 35 automatically enters the locking recess 20 to lock the parts against rotary movement. When it is desired to return the seat frame to the position shown in Fig. 1, the locking plunger may be again withdrawn as described and the seat frame C turned in the opposite direction until it assumes its original position.

In revolving seats heretofore employed, the carriage members and base frames have been provided with complicated cams and cam tracks which render the reversing movement difficult of operation and also greatly add to the expense and weight of the construction. With the new form of seat described, we have eliminated many of the parts formerly required and have provided simple and more efficient means for producing the reversing and shifting movement and means which can be operated with less exertion.

The foregoing detailed description has been given for clearness of understanding only, and no unnecessary limitations should be understood therefrom, but the appended claims should be construed as broadly as permissible, in view of the prior art.

We claim:

1. In combination, a base having longitudinal beams equipped with grooves, a carriage member having flanges engaging said grooves, a seat frame

pivotally mounted on said carriage, and a link member pivotally secured to said base and to one of the slidably mounted or carried members.

2. In combination, a base having longitudinal beams equipped with guide grooves, a stop at one end of one of said guide grooves, a carriage member having flanges engaging said grooves, and a link member pivotally connected to said base and to one of said slidably mounted or carried members.

3. In combination, a base member, a carriage member slidably mounted thereon, said carriage member being provided with a cylindrical opening, a seat frame equipped with an annular extension extending through said carriage opening, a retaining ring bolted to said seat frame and engaging an under edge portion of said carriage, and a guide link pivotally connected to said base and to said retaining ring.

4. In combination, a base, a carriage member slidably mounted thereon, said carriage member being provided centrally with a circular opening, a seat frame having an annular extension engaging the opening of said carriage, a retaining ring engaging the under edge portion of said carriage, a bolt member securing said ring to said seat frame, and a link pivotally engaging said bolt and pivotally connected to said base.

5. A revolving seat comprising, a base equipped with longitudinal beams, said beams being provided with guide grooves, a slidable block having lateral flanges engaging said grooves, a guide link pivotally connected to said base and to said sliding block, and a seat frame equipped with a base plate pivotally secured to said sliding block.

6. A revolving seat comprising, a base equipped with longitudinal beams, a slidable block, said block and said beams having interlocking elements for slidably securing said block to said longitudinal beams, a guide link pivotally connected to said base and to said sliding plate, and a seat frame equipped with a base plate pivotally secured to said slidable block.

7. In combination, a base having longitudinal beams, a carriage member slidably mounted on said beams, a seat frame pivotally mounted on said carriage, and a link member pivotally secured to said base and to one of the slidably mounted or carried members.

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