

Sept. 27, 1932.

W. J. MAYER

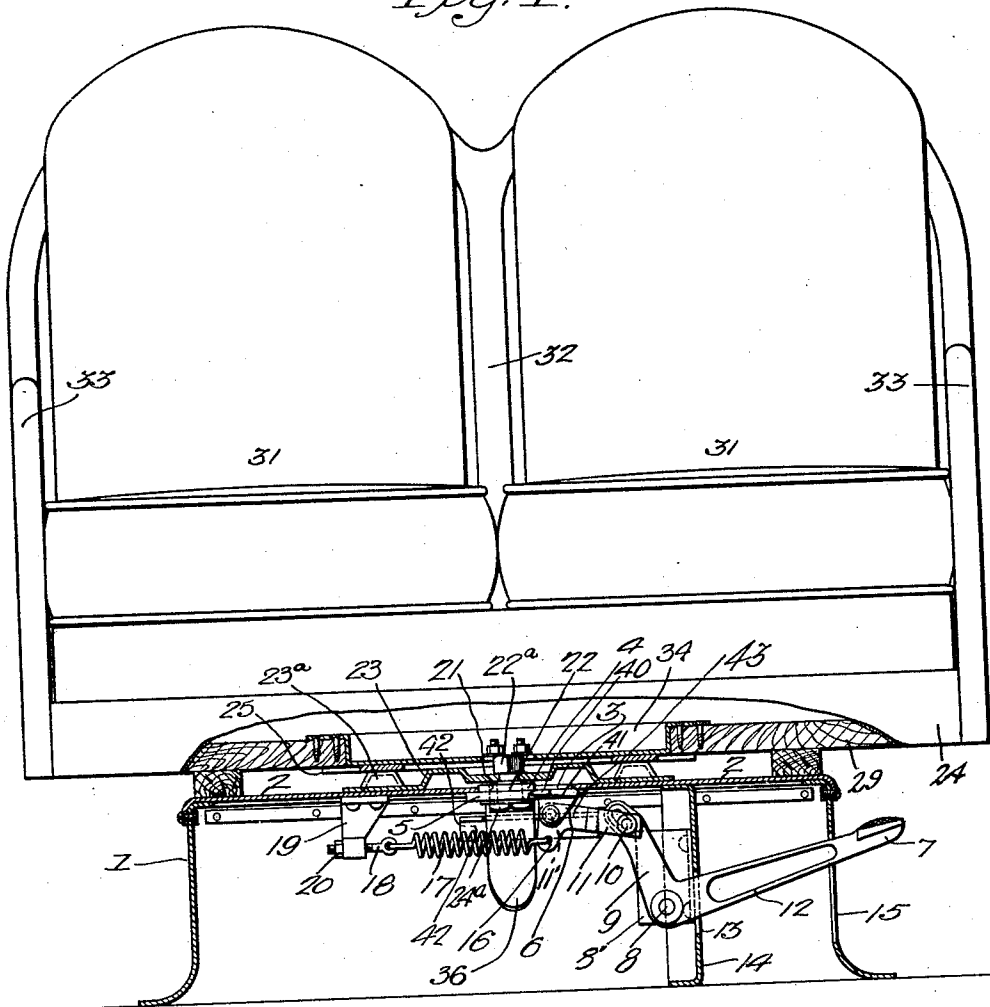
1,879,853

CAR SEAT

Filed Oct. 4, 1928

3 Sheets-Sheet 1

Fig. 1.



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Fig. 2

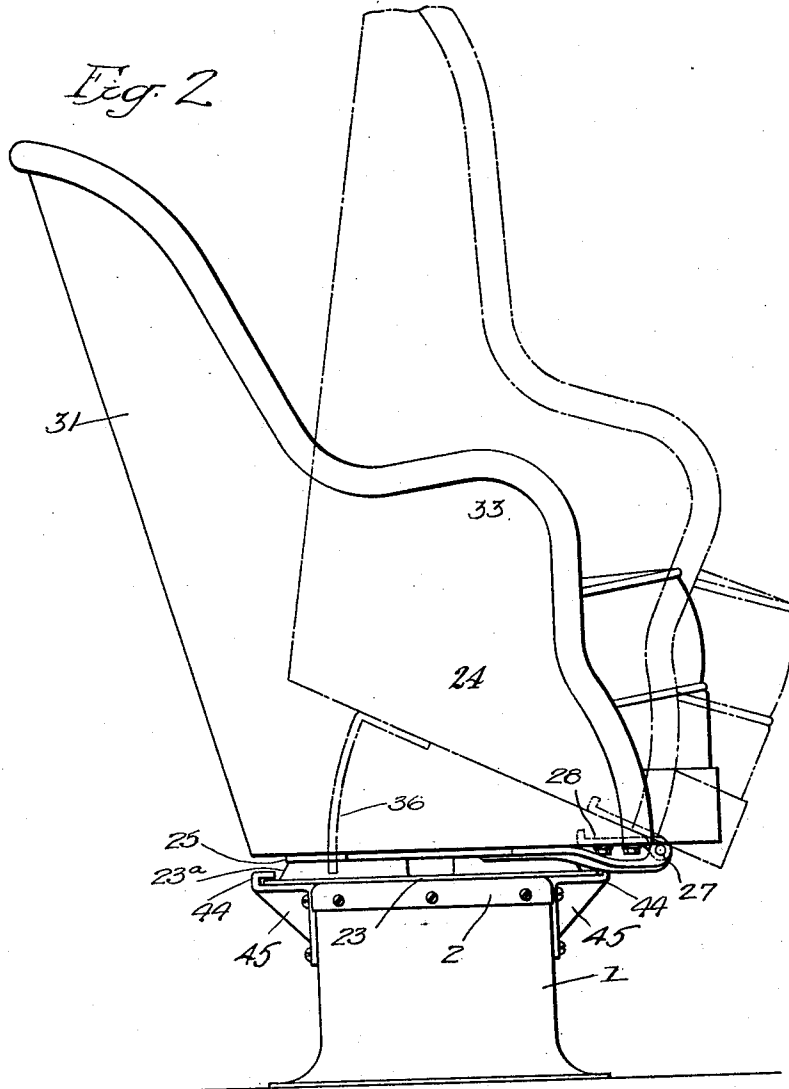
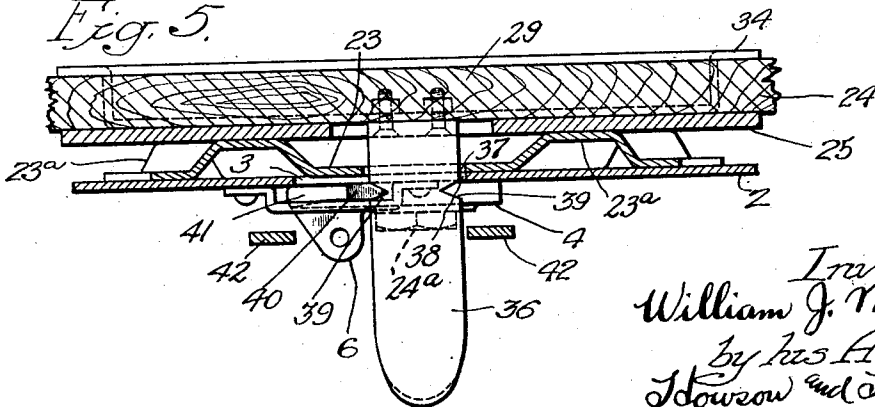


Fig. 5



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Fig. 3.

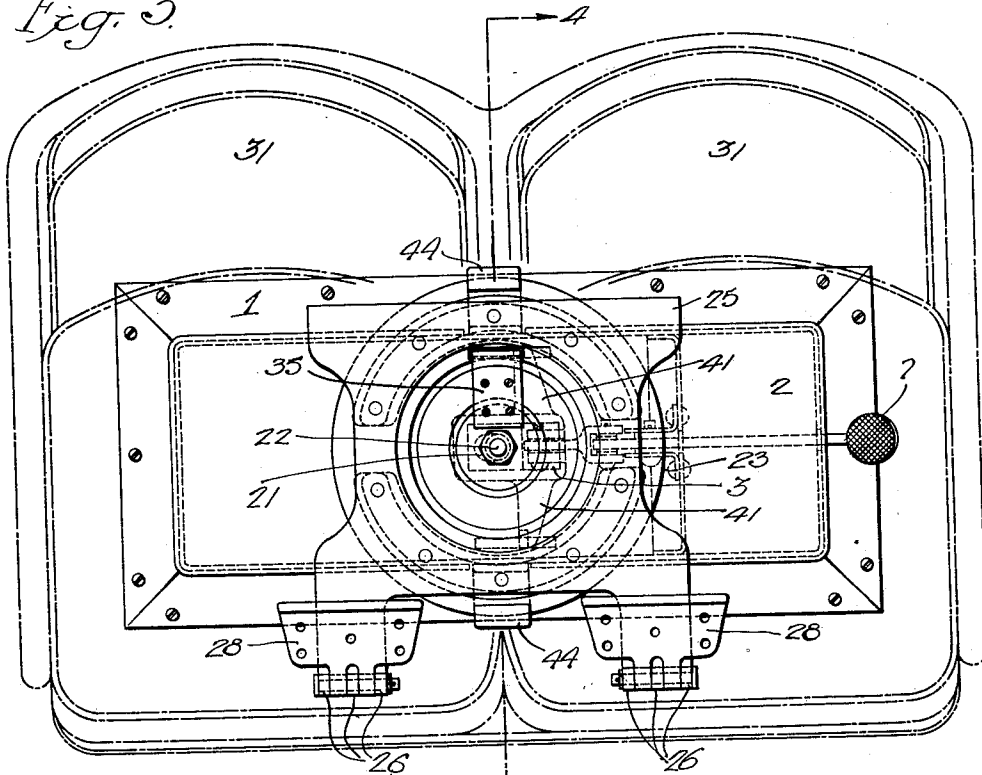


Fig. 4.

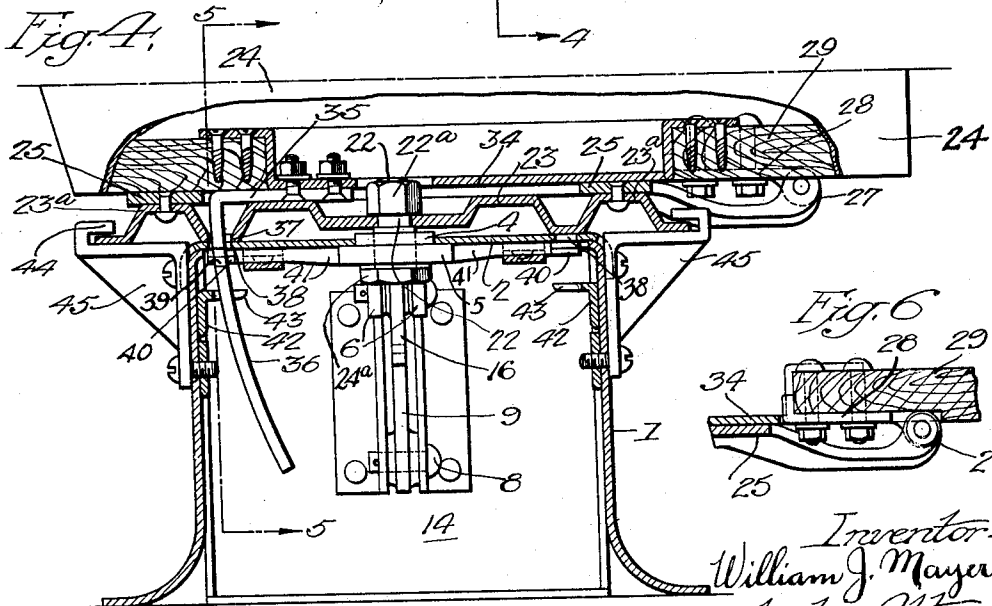
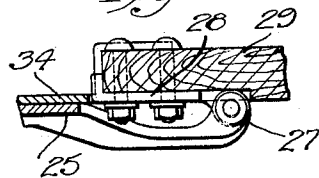


Fig. 6.



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UNITED STATES PATENT OFFICE

WILLIAM J. MAYER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR, BY MESNE ASSIGNMENTS, TO AMERICAN CAR AND FOUNDRY COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY

CAR SEAT

Application filed October 4, 1928. Serial No. 310,382.

This invention relates to certain improvements in car seats, and particularly the car seat illustrated in the patent granted to J. A. Brooks, Serial #1,644,632 on October 4, 1927, and on the car seat illustrated in the application to Wm. J. Mayer, Serial #271,815, filed April 21, 1928, which matured into Pat. No. 1,760,653, issued May 27, 1930.

The object of the present invention is to provide means whereby the seat section is locked to the pedestal, and whereby means are provided for first releasing said locking means, and for then moving the car seat laterally a certain distance.

The invention also relates to certain details which will be fully described hereinafter.

In the drawings, which represent one form of the invention:

Fig. 1 illustrates a front elevation, partially in section, of the completed device;

Fig. 2 is an end view thereof;

Fig. 3 is a sectional plan view;

Fig. 4 is a sectional view taken on the line 4-4 of Fig. 3;

Fig. 5 is a sectional view taken on the line 5-5 of Fig. 4; and

Fig. 6 is a detail showing of one of the hinge elements.

The seat of the present invention comprises a base 1 adapted to be mounted on a floor or other suitable support and provided with a top 2 having an elongated opening 3 formed therein (see Fig. 1) through which the projecting portion 4 of a slide 5 extends; the latter having portions underlying the top 2 adjacent the opening 3 as clearly shown in Fig. 4, and also being provided with spaced lugs 6 (see Figs. 1 and 5). The slide 5 is shiftable longitudinally of the base in the opening 3 by suitable lever means comprising a foot lever 7 of bell crank form pivoted as at 8 to a bracket 8' secured to the base; said lever including an upwardly extending short arm 9 and an arm 12 which extends through an opening 13 in a support 14 to which the

bracket 8' is secured and through an opening 15 formed in the base 1. This specific mounting of the foot lever 7, as just described, is merely by way of example as obviously the lever may be mounted in any suitable or desired manner.

The bell crank 7 is adapted, upon operation or shifting on its pivot 8, to shift the slide 5 as will appear more in detail hereinafter, and the upper end of the arm 9 is slotted and is pivotally connected as at 10 to a link 11 which latter is pivotally connected as at 11' to the before mentioned lugs 6. The link 11 is a bell crank and the short arm 16 thereof depends from the pivot 11' and is connected to a spring 17 having its opposite end secured to an eye bolt 18 arranged in a bracket 19 secured to the underside of top 2 of the base; said eye bolt being secured against displacement in the bracket by means of an adjusting nut 20 which obviously can be regulated to adjust the tension of the spring 17.

The slide 5 is provided with an elongated slot 21 (see Fig. 3) in which is loosely mounted a pivot pin 22 in the form of a bolt, the upper end of which projects through and is connected to a seat plate 23 by suitable means such as the nut 22a, as shown in Fig. 4. Secured to the lower end of the pin 22 is a retaining nut 24a (see Figs. 1 and 4). From the description thus far it will be obvious that because of the elongated opening 21 in the slide 5 there is a lost motion connection between a pivot pin 22 and said slide such that the slide may shift a certain distance relative to the pin 22 upon actuation of the lever 7. This operation will be more clearly pointed out hereinafter.

The seat plate 23 rests upon and is supported by the top 2 of the base and is provided with projecting portions 23a which serve as supporting elements for a seat body indicated generally at 24, through the intermediary of a hinge plate 25 riveted or otherwise secured to said seat plate and having spaced hinge

elements 27 connected to companion hinge elements 28 secured to the bottom board 29 of the seat body. Generally, the hinge connection is indicated at 26 in Fig. 3. The seat body may be of any preferred or desired form and the drawings illustrate one embodiment thereof in which the body consists of independent seat sections 31 separated by center arm 32 and having side arms 33. This construction is merely by way of example.

Secured to the bottom board 29 is a pan-shaped seat body stiffener 34 having a locking member 35 bolted thereto, the member 35 including a curved tongue portion 36 depending from the bottom board and extending through a slot 37 formed in the seat plate 23 and adapted to project through either one of oppositely arranged slots 38 formed in the top of the base. The tongue portion 36 is provided with oppositely arranged notches 39 on its side edges (see Fig. 5) each adapted to be engaged by a locking means carried by the lug 6 and comprising wedges 40 formed at the ends of arms 41 which project in opposite directions from the said lug, as clearly shown in Fig. 4.

Secured to the inside of the base 1 are diametrically oppositely arranged bracket members in the form of angles 42, the horizontal flanges thereof being slotted as at 43 to define stops or abutments at the ends of said brackets for limiting the extent of longitudinal travel or shifting of the seat body. Thus, when the seat plate is shifted, as more clearly described hereinafter, the tongue 36 moves in the slot 43 without releasing the seat body for rotation, due to the stops or abutments. However, the body can be tilted on its hinges as shown in dotted lines in Fig. 2 to free the tongue to permit rotation as will appear more clearly hereinafter.

The seat plate 23 is generally circular in form as is clearly shown in Fig. 3 and its edge extends into oppositely arranged guideways defined by the flanges 44 of oppositely arranged brackets 45 secured to the base as shown clearly in Figs. 2, 3 and 4.

In railway cars of the present day it is desirable to provide seats which will give extreme comfort to passengers. They must therefore be wide enough to provide ample space for the passengers as will be apparent. The present invention provides a railway car seat which is extremely comfortable and wide and therefore it must necessarily be arranged closely adjacent the side wall of a car. The car seat of the present invention obviously is not of the walkover type but to reverse the position of the seat it necessarily must be rotated. Due to the arrangement of the seat close to the side of the car it becomes necessary to shift the seat away from the side in order that it may clear the side when being rotated. Due to the proximity of adjacent seats and the particular type of seat shown

herein it will be apparent that the arcs of rotation of adjacent seats normally intersect and in the absence of means for tilting the seat it will be difficult if not impossible to rotate the seat to reverse its position. The present invention therefore contemplates a seat which may be shifted in order that it may be rotated to clear the side of a car and which seat may be manually tilted either prior to the commencement or during rotation of the seat.

In operation, when it is desired to reverse the position of the seat, the operator depresses the lever 7 which movement actuates the link 11 to shift the slide 5, this operation first causing the locking means or wedge 40 to leave or be disengaged from the notch in the tongue of locking member 35 and then causes the end of the slot to engage the pivot pin 22 to shift the seat plate 23 longitudinally of the base. Shifting of the seat plate obviously shifts the seat body and the seat body may be then swung on its hinges to the position shown in dotted lines in Fig. 2 whereupon the entire seat body may be rotated around the pivot 22 to reverse the position of the seat and then the seat body lowered on its hinges to project the tongue 36 into the opposite slot 38. The spring 17 thereupon causes a return of the slide 5 to its normal position and a locking engagement of the adjacent locking means 40 and the tongue 36.

It is, of course, understood that the invention is susceptible to numerous modifications and adaptations, and it is intended that it be limited only by the scope of the appended claims.

I claim:

1. In a seat, a base, a slide mounted on the base, a pivot pin carried by the slide and having lost motion connection therewith, said pivot pin defining an axis of rotation, lever means for shifting the slide, locking means associated with the slide and shiftable therewith, a seat body supported by the base and rotatable about the before mentioned axis of rotation, and a locking element on the seat body with which the locking means normally cooperates to prevent movement of the seat body, said lever means operating to shift the slide and the locking means to first disengage the locking means from the locking element and then cause the slide to shift said pivot pin and its associated seat body whereby the body may be tilted and then rotated to a new position.

2. In a car seat, a base, a slide mounted on the base, a pivot pin carried by the slide and having lost motion connection therewith, lever means for shifting the slide longitudinally, a locking means carried by the slide and normally cooperating with a seat body part, said lever means operating to first release the said locking means from the seat body part and then to shift the pivot pin, and a hingedly mounted seat body to which

the seat body part is secured, said seat body being connected with the pivot pin.

3. In a car seat having a tiltable, shiftable and rotatable seat body, the combination with a base and a slide on said base, of a seat plate on the base, a seat body hinged to said seat plate, a lost motion pivot connection between the slide and the seat plate, a latch for the seat body released in taking up the said lost motion, and lever actuated means for shifting the slide to take up the lost motion and shift the seat plate.

4. In a car seat, a base, a slide thereon, a seat plate rotatably related to said slide by a pin and slot connection, a seat body hinged to said seat plate for tilting movement, latch means for restraining said tilting movement, and means for shifting said slide to move the pin in the slot of the connection until the said latch means are released and subsequently pick up the seat plate and shift the same.

5. In a car seat, a base, a slide thereon, a seat plate rotatably related to said slide by a pin and slot connection, a seat body hinged to said seat plate for tilting movement, latch means for restraining said tilting movement, means preventing rotation of said seat plate until the same has been tilted, and means for shifting said slide to move the pin in the slot of the connection until the said latch means are released and subsequently pick up the seat plate and shift the same.

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