Dec. 5, 1933. J. L. MacALLISTER 1,938,435

AUTOMOBILE SEAT

Filed Sept. 5, 1931

Fig. 1

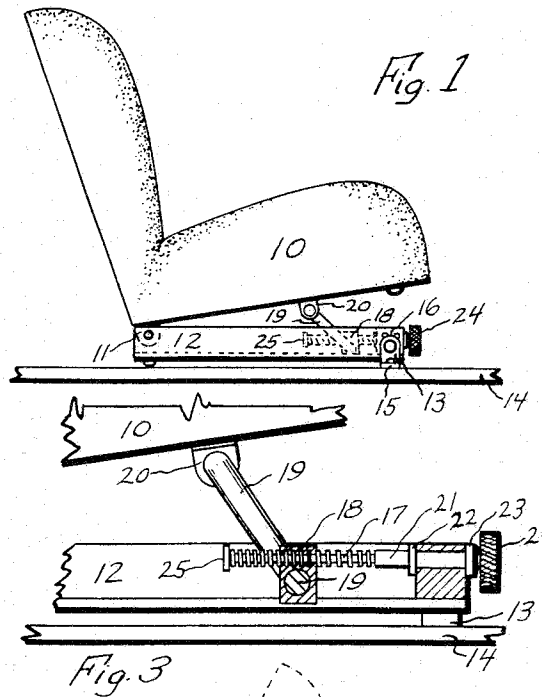


Fig. 2

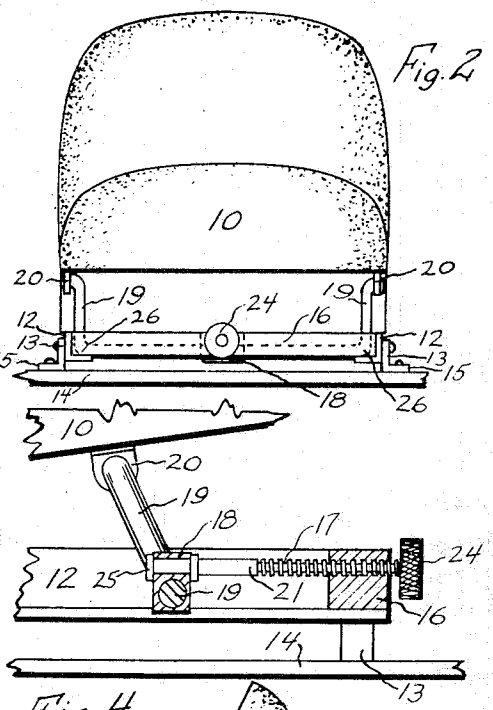


Fig. 3

Fig. 4

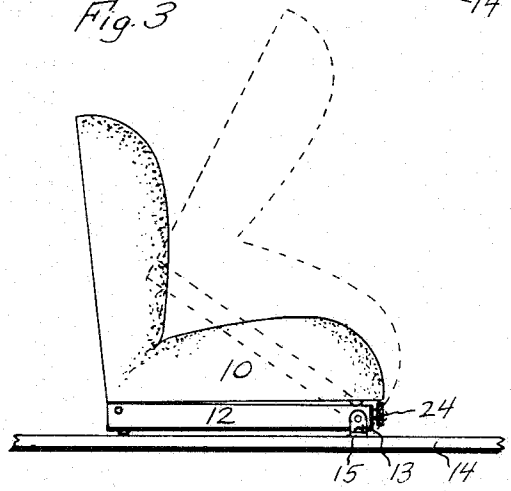


Fig. 5

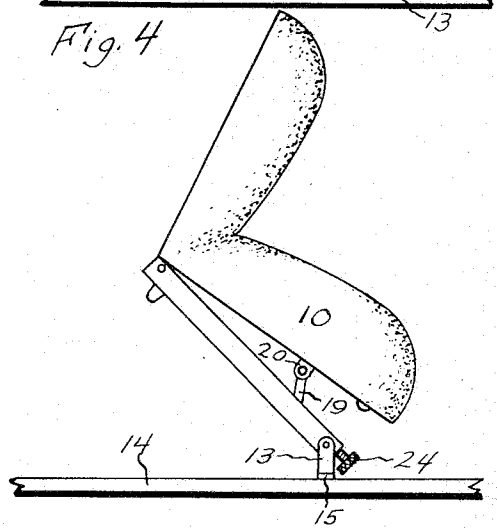


Fig. 6

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AUTOMOBILE SEAT

John L. MacAllister, Sioux City, Iowa

Application September 5, 1931. Serial No. 561,418

1 Claim. (Cl. 155—5)

My invention relates to automobile seats, particularly to the type of front seat which is thrown forward in a two-door sedan when entry is made to the rear seat, and my invention is also made with the view of providing such a seat with certain desirable features which the ordinary front seat in such cases does not have.

An object of my invention is to provide such a seat that can be tilted forward in the regular way without interfering with certain desirable mechanisms which will be described later.

Another object of my invention consists in the arrangement of such a seat so that it can be tilted forward or adjusted at any desirable angle for seating convenience.

Another object of my invention is the arrangement of its parts so the above mentioned functions will be accomplished with the greatest efficiency and convenience.

Another object is to provide a forwardly tilting and rearwardly adjustable seat which will be very sturdy in construction.

A further object of the invention is to provide such an arrangement which will be easy to manufacture due to the simplicity of its elements.

With these and other objects in view, my invention consists in the construction, arrangement, and combination of the various parts of my device, whereby the objects contemplated are attained as hereinafter more fully set forth, pointed out in my claim, and illustrated in the accompanying drawing, in which:

Figure 1 is a side view of the seat in one of its raised positions,

Figure 2 is a front view of the seat in the same position,

Figure 3 is a view of the adjusting mechanism for increasing or decreasing the angle of the seat,

Figure 4 is an alternative construction accomplishing the same result,

Figure 5 is a side view of the seat when in its lowest position, and the dotted lines of Figure 5, show the seat when tilted forward, and

Figure 6 is a side view of the seat when tilted forward and also in one of its raised positions.

I have used the reference character 10 to indicate the seat generally. The seat 10 is hinged by means of the hinge 11 at the rear of an angular piece 12, which piece is hinged to the piece 13 which piece 13 is secured to the front of the car 14 by means of the flange 15.

A solid, substantially square member 16 is rigidly secured between the angular piece 12 in its forward portion.

A screw thread 17 engages a block 18 which carries the U shaped arm 19, which arm is bent at its upper portions to engage the hinges 20 of the seat 10.

The screw thread 17 is integral with the shaft 21 which is provided with shoulders 22 and 23.

A knurled hand-screw 24 is provided for adjusting the seat 10 to any angle.

The shoulder 22 and an additional shoulder 25 are pinned or secured in any manner well known in the art.

It will be seen from this description that by turning the knurled hand-screw 24, the block 18 will be carried either forwardly or rearwardly, depending upon the direction that the hand-screw 24 is turned, and will thereby raise and lower the angle of the seat 10.

It will be further seen that this mechanism does not interfere with the swinging of the seat forwardly about the hinge 13 since all of the parts are carried by the angle piece 12.

The thread 17 is a spiral thread and is made sufficiently strong to withstand ordinary shocks or strains.

It will be seen also, as in Figure 4, that the same operation such as increasing or decreasing the angle of the seat will take place, although the construction is slightly different and in this case the block 18 will be carried either rearwardly or forwardly by means of the screw thread passing through the member 16, except in this case the hand-screw 24 will also move forwardly and rearwardly. Either construction could be used in my invention, although that construction employed in Figure 3 may be preferable.

It will be seen that the block 18 is only in the center of the U shaped arm 19, but that the arm 19 rests, at its lower portions, against the lower flanges of the angular piece 12 as shown at 26. This is very important since it gives a great deal of strength to the supporting means for the seat 10.

It is preferable in my invention to adjust the seat when no one is seated upon it since no undue strain will be transferred in that case to the threads. However, this will be conveniently accomplished since most adjustments of a like nature are taken care of in that manner.

When the construction shown in Figure 4 is used, it is preferable to make the hinge 13 slightly higher than in the other construction so that when the seat is swung forwardly as

shown in Figure 6, the hand-screw 24 will not come in contact with the floor 14 of the car thereby preventing the seat from swinging over to its maximum position.

It is generally desirable in many cases, in view of riding comfort, to have a seat that can be adjusted at any angle. It will be seen from my invention that I have accomplished this means. All that is necessary is to turn the screw 24 so that the seat can be adjusted at any suitable angle and the seat can be left in that posiion, if so desired, without interfering in any way when it must be swung forwardly.

It can be further seen that the seat can be raised to one of its elevated positions with no danger of breakage of any of its parts since the strains resulting from an individual being seated upon the seat will be transferred through the arm 19 to the angle portion 12 and of course part of the strain will be directed against the screw thread 17. All of these members are arranged to withstand such a strain in the best possible manner.

It will be noted that I have accomplished all the above mentioned results in a very simple way from a manufacturing standpoint.

Also it will be noted that I have accomplished a result which is generally absent in most seats of this type, namely, a seat with all of its parts assembled together, which seat can be shipped complete and fastened readily to the floor of a car at only two points.

Some changes may be made in the construction and arrangement of the parts of my invention without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claim any modified forms of structure or use of mechanical equivalents which may be reasonably included within its scope.

I claim as my invention:

In combination with a vehicle seat of the type which tilts forwardly, and a vehicle floor, means for tilting the seat forwardly and rearwardly and maintaining the rigidity thereof, comprising a pair of angle shaped elements attached pivotally at their forward ends to a pair of floor supports, and attached pivotally at their rear ends to the rear of the seat, adjustable means for positioning the seat at an angle with respect to the vehicle floor, comprising a shaft, a block threadedly engaged with the shaft, a rigid U shaped member formed of one piece pivotally mounted in the said block, the lower horizontal portion of said U shaped member adapted to be received within the pair of angle shaped members and to be directly supported thereby, the upper ends pivotally attached near the middle of the under side of the seat, a rigid forward member for rotatably supporting the shaft, and means for manually rotating the shaft.

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