J. H. BARNETT.

SEAT OF MOTOR CARS.

APPLICATION FILED SEPT. 27, 1919.

1,353,708.

Patented Sept. 21, 1920.

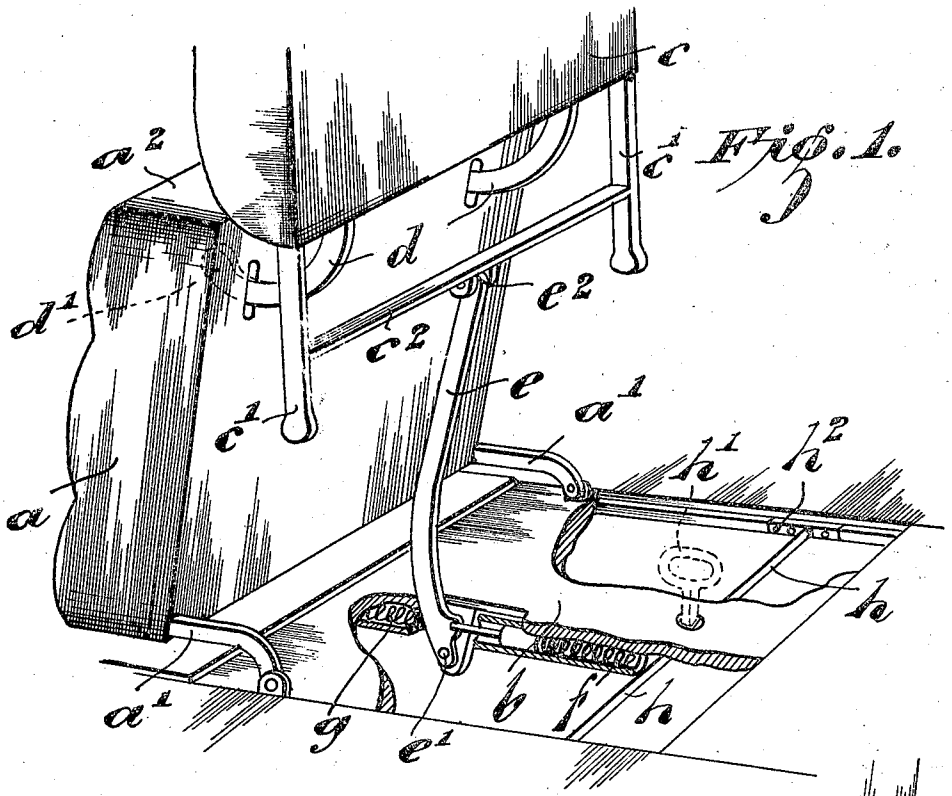


Fig. 1.

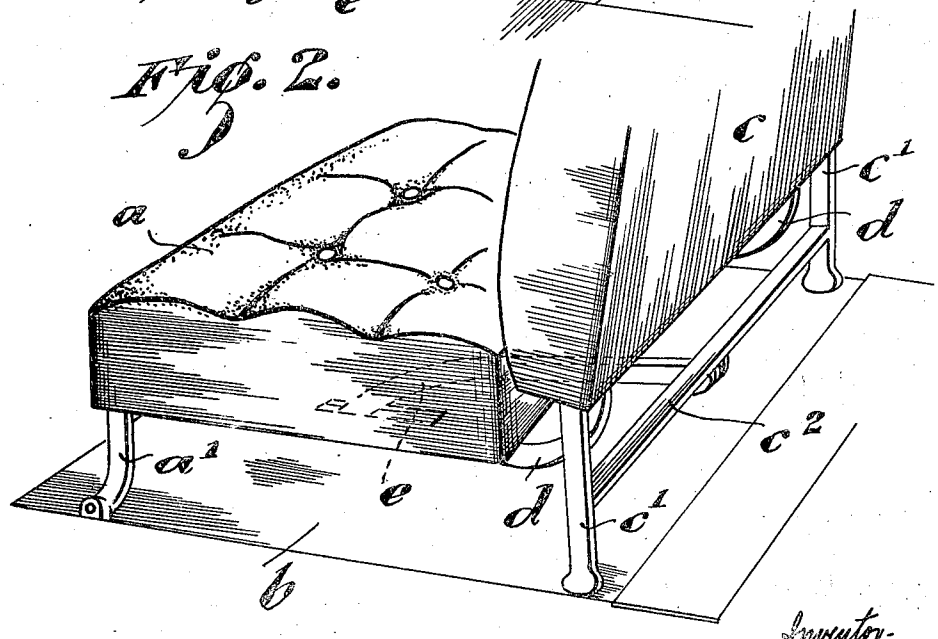


Fig. 2.

Inventor-
John Harold Barnett
By- B. Singer, Atty

UNITED STATES PATENT OFFICE.

JOHN HAROLD BARNETT, OF TETTENHALL, ENGLAND.

SEAT OF MOTOR-CARS.

1,353,708. Specification of Letters Patent. Patented Sept. 21, 1920.

Application filed September 27, 1919. Serial No. 326,992.

To all whom it may concern:

Be it known that I, JOHN HAROLD BARNETT, a subject of the Kingdom of Great Britain, residing at "The Grotto," Tettenhall, in the county of Stafford, England, engineer, have invented certain new and useful Improvements in and Relating to the Seats of Motor-Cars, of which the following a specification.

This invention relates to the seats of motor cars, and is more particularly applicable in the case of the landaulet, cabriolet, or coupé type in which the seat between the front and interior of the car is of a tilting or turn-up type, which tilting also operates the back of the seat, for enabling access to be gained from the side door to either the front or back of the car, the present invention comprising an improvement in the method of and means for tilting the seat and effecting the required movement of the back of the seat.

In order that this invention may be clearly understood and readily carried into practice, reference may be had to the appended sheet of drawings, upon which:—

Figure 1 is a perspective view showing the seat in the raised position for entering the car.

Fig. 2 is also a perspective view showing the seat in the normal low position.

In an embodiment of this invention the seat *a* is arranged in such a position in relation to the side door of the car that when in its seating position entrance to the front part of the car can be obtained through the side entrance, the lower edge of the riser, front supports, or legs a^1 of the seat being horizontally pivoted to the floor *b* of the car, in such a manner that the seat can be tilted forward until its riser or supports a^1 are parallel with the floor with the seat in an approximately vertical position as shown in Fig. 1. The back *c* of the seat which is adapted to rest on the floor conveniently by means of legs c^1 provided at each side with an arm *d*, one end of each of which is fixed to the back *c*, and the other end d^1 of each of which is pivoted respectively to suitable fulcrum pieces at the rear of the seat *a*, the said arms *d* preferably working in slots a^2 in the underside of the seat.

A lever is provided centrally of the seat one end e^1 or connecting element *e* of such lever being pivoted to the floor of the car at a point under the seat, somewhat to the front thereof and working in a slot, the other end of such lever *e* being pivoted to the back at a position e^2 to a transverse member c^2 or equivalent part of the back *c* the lever being cranked or curved in such a manner that the part pivoted to the floor is approximately vertical, while the part pivoted to the back is approximately horizontal as shown in Fig. 2. If desired the connecting elements *e* may be duplicated and provided one on each side of the seat.

Small clearance is provided between the back edge of the seat proper and the face of the back to allow of clearance of the padding on the seat back when the seat is being tilted, while the curved formation of the arms *d* insures the complete separation of the back and seat when the latter is being tilted.

Brackets or other suitable supports may be attached to the underside of the rear part of the seat *a* or such brackets may be arranged on the lower part of the seat back *c* to form a support for the seat *a*. Provision may be made in conjunction with the seat support or lever *e* whereby the tilting may be balanced by the use of weights or springs.

The action of tilting is as follows:—Upon the rear part of the seat *a* by a suitable table or the like attached thereto the back *c* is drawn forward by the arms *d*, and at the same time elevated or raised as shown in Fig. 3 until the seat is fully tilted forward and occupies approximately a vertical position with its bottom edge resting on the supports a^1 of the seat *a* or nearly so as to avoid interfering with the entrance through the side door to the rear of the car. The back *c* of the seat is then in juxtaposition or approximately parallel with the said seat *a* and is retained in this position through the medium of the lever *e* as shown in Fig. 1.

In order to enable the seat to be readily raised when necessary a compressed spring device *f* is employed conveniently beneath the floor *b* and in connection with the lever *e* in such a manner that said spring is compressed when the seat is in the sitting position but when the seat is being raised or tilted said spring tends to force the lever *e* into the raised position shown in Fig. 1 and so assists in the tilting or tipping of the seat. This also insures that the seat will remain in the tilted or raised position when

so placed and will not inadvertently fall into the sitting position or the back *c* fall forward through vibration or the like. Further a buffer spring arrangement *g* may be incorporated as shown in Fig. 1 so that when the seat is being raised or tilted it shall not fall into position with undue noise or the like. By this arrangement the spring *g* is compressed before the seat *a* comes into contact with the floor of the car.

In order to enable the seat *a* to be adjustable longitudinally of the car the floor may take the form of a sliding board or platform as shown in Fig. 1, the extreme ends of which lie under or above adjacent floor-boards of the car in such a manner that by this overlapping, spaces or holes are avoided in the floor of the car consequent upon the adjustment of the seat *a*. A locking mechanism for rigidly positioning the seat when the desired adjustment has been obtained may be employed, and this may take the form of two rods *h* which are moved axially toward or away from one another by the key h^1 to so register with the perforations h^2 on the fixed floor of the car. The arrangement of tilting seat and back may be adapted for use in cars in positions other than that previously described.

What I claim as my invention and desire to secure by Letters Patent is:—

1. A seat mounted for tilting movement, a back pivotally connected to and carried by the rear side of the seat, and a lever pivotally connected at a point below the seat and also pivotally connected to the back at a point eccentric to the pivotal axis of the back, said lever causing the back to remain in substantially vertical position irrespective of whether the seat is in normal or in tilted position.

2. A seat mounted for tilting movement, a back pivotally connected to and carried by the rear side of the seat, and provided with supporting means extending below the pivotal axis of the back, and a lever pivotally connected at a fixed point below the seat and also pivotally connected to the back at a point below the pivotal axis of the back and causing the back to remain in substantially vertical position irrespective of whether the seat is in normal or in tilted position.

3. In a motor car a tilting or turn up seat having a back hingedly connected thereto through the medium of arms or like members, said back being also connected to the floor of the car or equivalent by a lever or levers or connecting element or elements.

4. A tilting or turn up seat as set forth in the last preceding claim in which a compression spring device is employed in connection with the lever or levers in such a manner as to assist in the tilting of the seat and also to retain said seat in the tilted position when desired.

5. A tilting or turn up seat as set forth in claim 3, in which a buffer spring device is employed to prevent the seat from falling with undue noise or weight when tilted.

6. A tilting or turn up seat as set forth in claim 3 which is mounted upon a sliding floor or platform and is provided with locking means substantially as herein set forth.

In witness whereof I have hereunto set my hand.

JOHN HAROLD BARNETT.