

PATENT SPECIFICATION (11)

1425254

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(54) "SEAT FOR MOTOR VEHICLE"

(71) We, LANCIA & C. FABBRICA AUTOMOBILI TORINO S.p.A., an Italian Joint Stock Company of Via Vincenzo Lancia 27, Turin, Italy, do hereby declare the invention, for which we pray that a patent may be granted to us and the method by which it is to be performed, to be particularly described in and by the following statement:-

The present invention relates to a seat for motor vehicles, which is particularly adapted to permit a positioning of the body of a user which takes account of the physiological requirements of the spine under the various demands of driving, and which also ensures a stable position of the pelvis while allowing freedom of movement of the lower limbs.

According to the present invention in a motor vehicle seat suitable for securing in position in a motor vehicle for seating the driver or passenger of the motor vehicle while the vehicle is in motion, the seat has means for fixing the seat to the body of the vehicle and a seat cushion which is substantially pentagonal in plan and is symmetrical about a longitudinal centre line, and the front edge of the seat comprises two sides of the pentagon converging at the front towards the centre line of the cushion.

Seats formed as embodiments of the invention are particularly suitable for the driver of a motor vehicle, but they also offer considerable comfort for passengers.

To meet the physiological requirements of the spine of a user the seat preferably has a back-rest of small dimensions, separate from the seat cushion and concave towards the seat cushion, which is spaced from the seat in the region of the lordotic curve of the spinal vertebrae of an occupant; the width and concave shape of the back-rest are such as to provide a lateral stability which is sufficient to provide support against crosswise stresses which occur during cornering while nevertheless allowing the shoulder blades to move

freely thus allowing the fullest use of the upper limbs.

In order to ensure a stable position of the pelvis and still allow freedom of movement to the lower limbs the cushion is preferably so formed with a raised part at the centre front in the region of the junction of the two inclined sides forming the front edges of the seat cushion; this locates the pelvis but allows freedom of movement to the thighs and hence to the lower limbs, thereby allowing use of the foot pedals without restriction, and also allowing use of the foot pedals without restriction, and also allowing the driver to find the best resting position for the limb not being used when driving for long distances in top gear. The form of the front cushion also facilitates circulation and nerve conduction of the lower limbs. The raised portion at the centre front stabilises the position of the pelvis, preventing it from slipping forward or from moving sideways. There may also be provided two raised ridges situated at the sides of the seat cushion and corresponding to the trochanteric regions.

The seat may be additionally provided with a head-rest of very small size to provide adequate visibility (particularly when reversing) the height of which can be adjusted, independently of the position of the back-rest.

The elements of the seat are all preferably mounted so as to allow accurate and personal adjustment of the relative positions between the back-rest and seat cushion and between the seat as a whole and the passenger compartment.

Adjustment of the seat to different positions both forwards and backwards can be effected, and in addition the seat cushion can be adjusted in height, and tilt, both backwards and forwards. Moreover, the back-rest, which is completely reclinable, and also the head-rest, can be adjusted for height independently of each other.

The invention also includes a motor vehicle having a seat according to the invention secured in position in the vehicle by the fixing means.

5 One embodiment of the invention will now be more particularly described, by way of example, with reference to the accompanying drawings, in which:

10 Figure 1 is a perspective view from the front and one side of the embodiment to be described;

Figure 2 is a front view of the embodiment shown in Figure 1;

15 Figure 3 is a plan view of the embodiment shown in Figure 1; and

Figure 4 is a perspective view from the front and one side, showing back-rest and head-rest in the reclined position.

20 The seat-cushion of the seat is generally indicated 1, and is carried by a support structure generally indicated 2 which also acts as means for fixing the seat to the body of a motor vehicle (not shown). The support structure 2 is fitted with known means for adjusting the position of the seat cushion forwards or backwards, for adjusting the height of the seat cushion, and for adjusting the inclination of the seat cushion either backwards or forwards.

30 The seat cushion 1 has a substantially pentagonal plan, defined by a rear edge 3, two sides 4, 5, and two inclined front edges 6, 7 which converge towards the front and are connected together by a curved centre portion 8 which bounds a region 9 of the cushion which is raised in relation to the rear part 10 of the cushion. Along each of the two sides 4, 5 of the seat cushion 1 there are raised ridges 11, 12. A back-rest 13 of the seat is mounted separately from the seat cushion 1 upon a flat support column 14. The back-rest 13 has a concave profile in plan and is adjustable in height along the flat support column 14 which is, in its turn, adjustable in inclination by known means to provide for reclining adjustment of the seat.

45 A head-rest 15 is provided at the top of the flat support column 14. The head-rest is mounted so as to be adjustable in height along the support 14, independently of the adjustment of the back-rest 13 and of the inclination of the support pillar 14. The head-rest 15 has a substantially trapezoidal frontal shape with its shorter side 16, which is roughly equal in width to that of the support column 14 being lowermost.

WHAT WE CLAIM IS:-

60 1. A motor vehicle seat suitable for securing in position in a motor vehicle for seating a driver or passenger of a motor vehicle while the vehicle is in motion, the seat

having means for fixing the seat to the body of the vehicle and having a seat cushion which is substantially pentagonal in plan and is symmetrical about a longitudinal centre-line, the front edge of the seat comprising two sides of the pentagon converging at the front towards the centre line of the cushion.

2. A seat according to claim 1, in which the junction of the two inclined sides forming the front edge of the seat has a convexly curved edge.

3. A seat according to claim 1 or claim 2, in which, between the two inclined sides forming the front edge of the seat there is formed a front central portion which is raised above the remainder of the seat.

4. A seat according to any one of claims 1 to 3, in which the seat cushion has a ridge along each of its sides, the ridge being raised with respect to the main part of the seat.

5. A seat according to any one of claims 1 to 4, the seat having a back-rest which is mounted separately from the seat cushion, and which is concave in plan towards the seat cushion and extends for less than the full height of the back of the seat.

6. A seat according to claim 5, in which the back-rest is adjustable in height, and is mounted on a flat support, extending from a support structure on which the seat cushion is mounted.

7. A seat according to claim 6, in which the inclination of the support column is adjustable to provide at least one reclined position of the seat.

8. A seat according to claim 6 or claim 7, in which the flat support column also carries a head-rest which is adjustable in height along the column.

9. A seat according to claim 8, in which the head-rest has a substantially trapezoidal frontal shape, the shorter side of the trapezoid being lowermost and having a width substantially the same as that of the support column.

10. A seat according to claim 1, substantially as described with reference to and as shown in the accompanying drawings.

11. A motor vehicle having a seat according to any one of the preceding claims secured in position therein by the fixing means.

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COMPLETE SPECIFICATION

4 SHEETS

*This drawing is a reproduction of
the Original on a reduced scale*

Sheet 1

FIG. 1

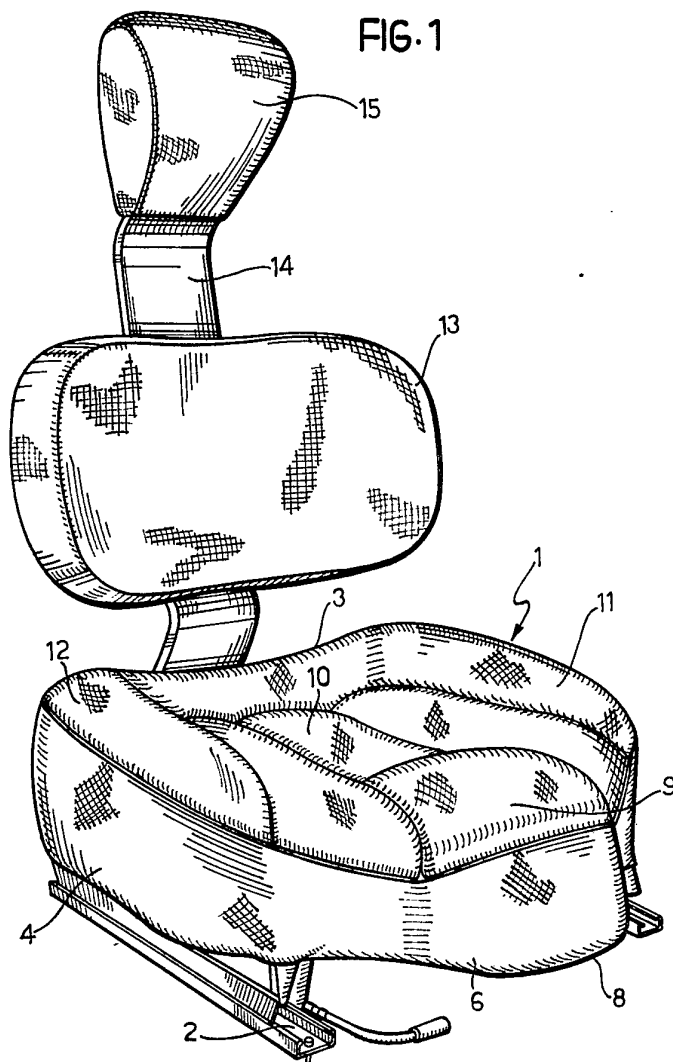
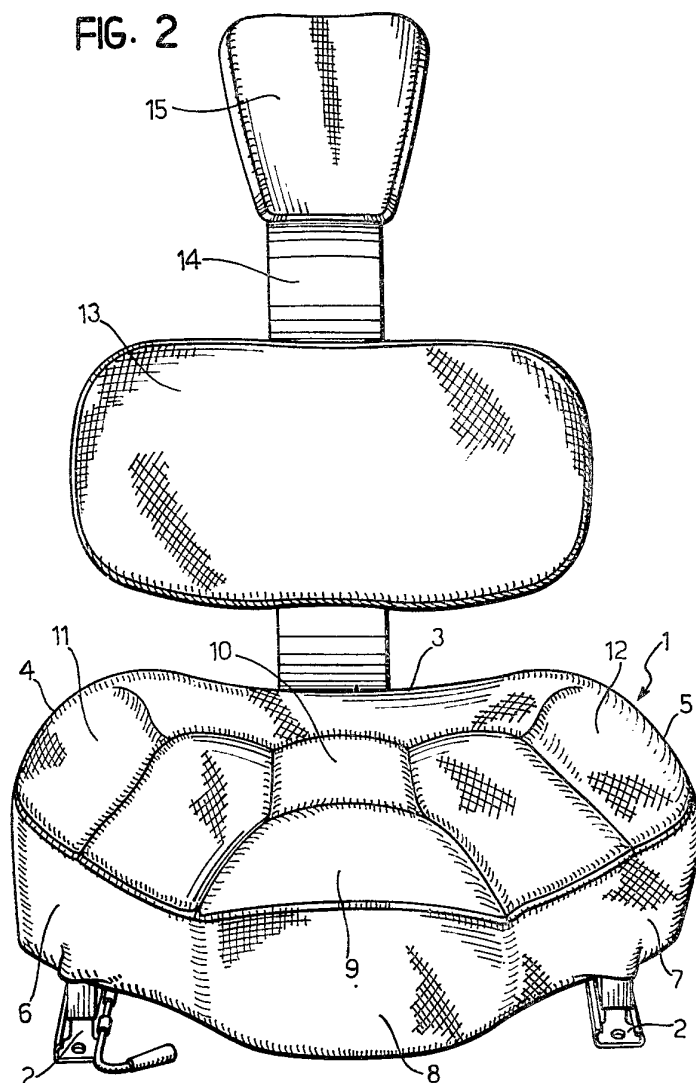


FIG. 2



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Sheet 3

FIG. 3

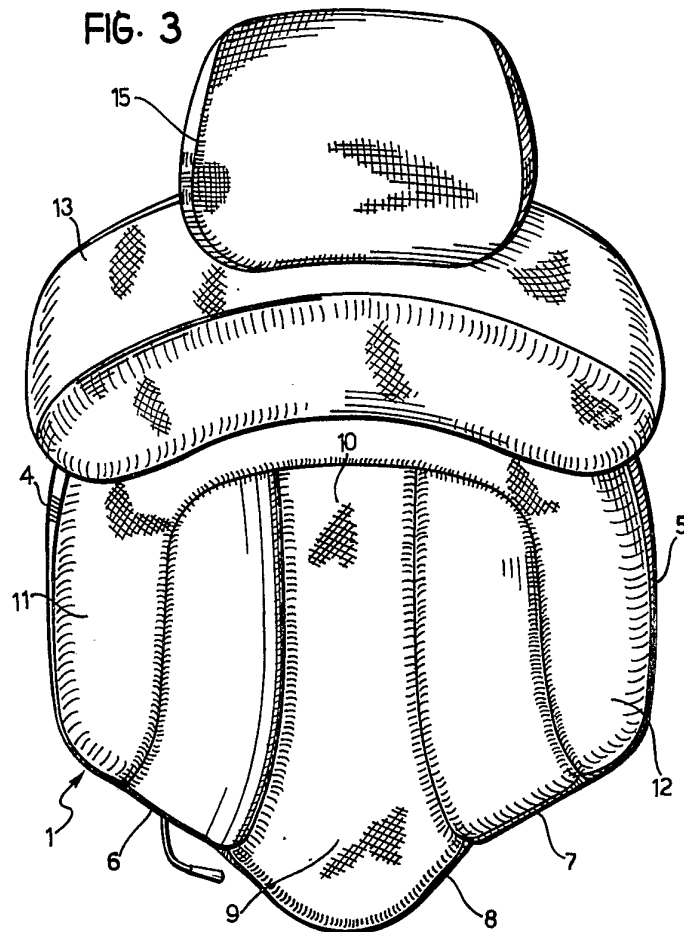


FIG. 4

