

June 25, 1968

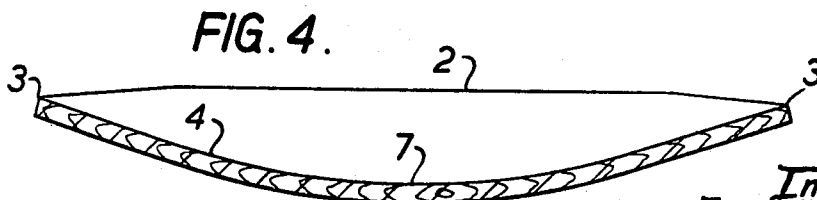
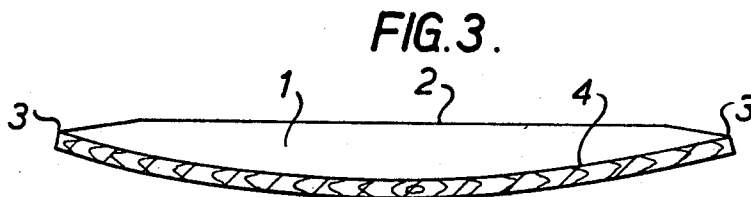
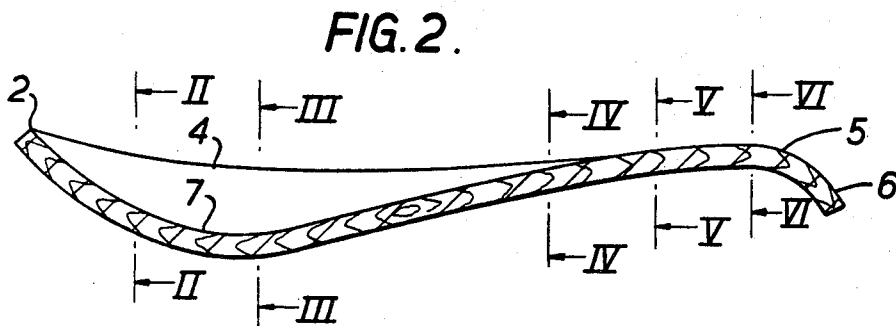
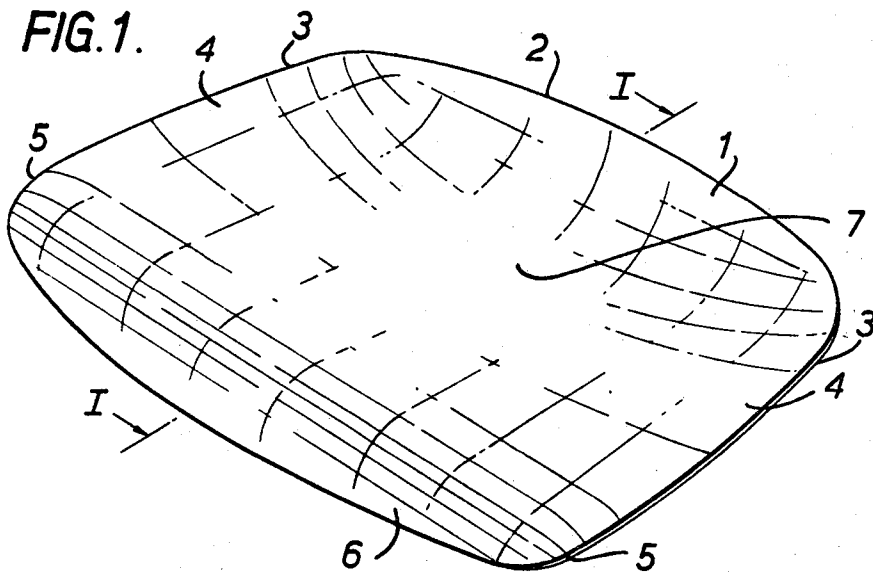
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3,389,936

SEATS

Filed Nov. 18, 1966

2 Sheets-Sheet 1



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FIG. 5.

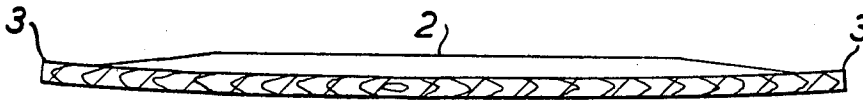


FIG. 6.

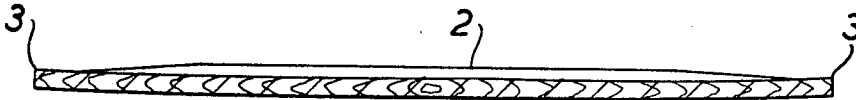


FIG. 7.

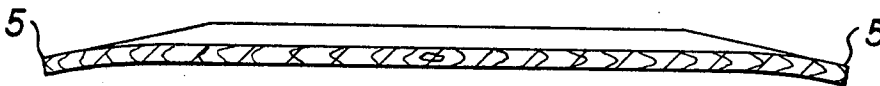
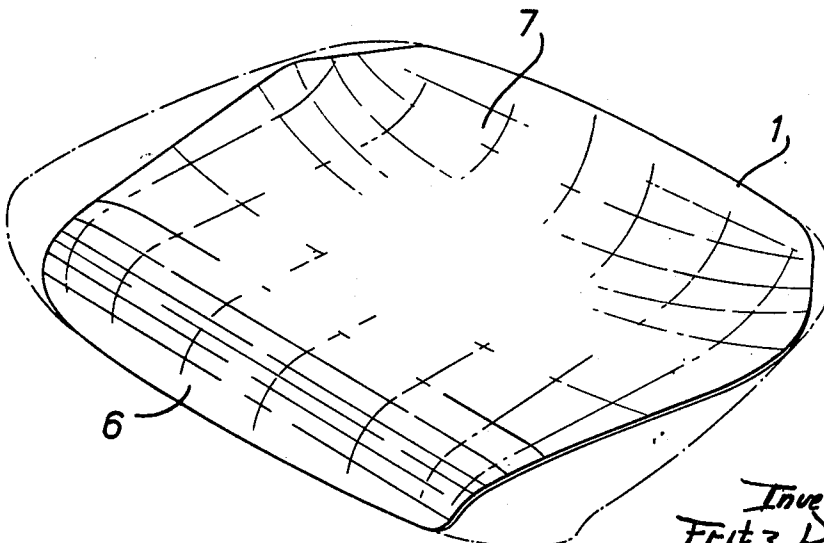


FIG. 8.



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3,389,936
SEATS

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D 33,365

5 Claims. (Cl. 297—459)

ABSTRACT OF THE DISCLOSURE

A seat comprising a rear portion with a depression and having a rearmost portion adjacent to the rear of the depression which rises in a smooth curve to the rear edge of the seat. Side portions of the seat are disposed adjacent to and laterally of the depression and each side portion rises in a smooth curve to the respective lateral edge of the seat. The seat further has a flat portion at the front and the side portions each slope upwards towards the front portion, the slope decreasing gradually to nil where the side portions meet the front flat portion.

This invention relates to seats.

Various existing chair bottoms have a shaped seat which forms a wedge-shaped surface, straight or curved, rising towards the rear, to serve as a support for the pelvis of the person using it.

Medical investigations and practical experience have shown the limitations of chair bottoms shaped in this way. In the case of the chair bottom having a wedge-shaped seat rising towards the rear, emphasising the "sacro-effect," the disadvantage is a too pronounced centering of the buttocks of whoever uses a seat so shaped. This drawback is the more marked where there is further shaping at the front, to provide the desired leg attitude, so that "sitting under constraint" is no exaggeration as a description of this; for it is a principle of seating technique that even the most restful support is unbearable in the long run, if no change of posture is possible.

There is, too, no longer any novelty about seats in which this "constraining" shape is avoided by the absence of any centering, in the form of a prescribed seat moulding or leg shaping, additional to the wedge-like rise of the rear part of the seat. The disadvantage of these proposed seats is that the muscles around the tuber ischii are subjected, on such a plane seat, to increased specific pressure.

It is an object of the invention to provide an improved seat.

According to the present invention there is provided in a seat, a rear portion having a depression therein, a rearmost portion adjacent to the rear of the depression and rising in a gentle curve to the rear edge of the seat, side portions adjacent to and laterally of the depression, each said side portion rising in a gentle curve to the respective lateral edge of the seat, and a front flat portion of the seat, the side portions each having a slope upwards towards the front portion which decreases gradually to nil where the side portions meet the front flat portion. That portion of the seat which is right in front, i.e. the frontmost portion and which extends from the absolutely horizontal or flat portion towards the front edge and the two side edges may have the shape of a double trapezium with a common base line.

One example of a chair seat embodying the invention will now be described, by way of example, with reference to the accompanying diagrammatic drawings, in which:

FIGURE 1 is a perspective view of a seat in accordance with the invention;

FIGURE 2 is a longitudinal section along the line I—I in FIGURE 1;

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FIGURES 3 to 7 are cross-sections along the lines II—II, III—III, IV—IV, V—V and VI—VI in FIGURE 2; and

FIGURE 8 is a perspective view of another embodiment, the periphery of which differs somewhat from that shown in FIGURE 1.

The chair bottom here proposed has a seat which is made, more particularly, of some material which retains its shape, plywood or plastics being prime examples. What is aimed at is the provision of a good posture, resulting from the shape of the seat surface here proposed.

As can be seen from FIGURES 1 to 8, the rear portion of the seat contains a depression 7, to accommodate the user's tuber ischii. Running rearwards from this depression, across the entire width of the seat, is part 1 of the seat, which curves gently upwards, with a wedge effect, to the rear edge 2 of the seat. This part 1 of the seat, curving gently upwards towards the rear with a wedge effect, affords particularly effective and suitable support all around to the user's pelvis, so that the specific pressure on the muscles has the most favourable possible value.

Portions 4 of the seat, adjacent one each side of depression 7, curve gently upwards to side edges 3 of the seat, the upward slope of these side portions 4 towards the front of the seat gradually dropping to nil in the absolutely horizontal region 5, of the front part of the seat. This feature gives freedom of side movement to the user's thighs. Region 5 of the front part of the seat is not curved or shaped in any way across the seat.

The very front portion of frontmost portion 6 of the seat curves downwards, from region 5 towards the front edge and the two side edges 3 of the seat, to avoid the pressure of a hard edge on the thighs.

This novel seat design is medically acknowledged to offer the best seating characteristics.

A person sitting for long periods at a time is completely free to alter his posture. He can avoid the wedge effect and sit back, which means that he can avail himself of any desired change in the position of the chairback to shift the surface pressure. He can use the chairback to take his weight and support his body, without needing to dispense with a shaped seat having the advantage of reducing pressure on the muscles round the tuber ischii. Exaggeration of the lumbar curve of the spinal column, which results from excessive strain on the small vertebral joints, due to this wedge effect, is substantially eliminated.

The seat described has the advantage that the chair seat enables the user to sit back and avoids the wedge effect, in addition to which the user's pelvis is not brought into an unnatural shape.

I claim:

1. In a seat,
a rear portion having a depression therein,
a rearmost portion adjacent to the rear of the depression and rising in a gentle curve to the rear edge of the seat,
side portions adjacent to and laterally of the depression, each said side portion rising in a gentle curve to the respective lateral edge of the seat, and
a front flat portion of the seat, the side portions each having a slope upwards towards the front portion which decreases gradually to nil where the side portions meet the front flat portion.
2. In a seat according to claim 1,
a frontmost portion extending between the front flat portion and the front edge of the seat, said frontmost portion curving downwardly to the front edge.
3. A seat according to claim 1, wherein the periphery of the seat, when projected, has the shape of a double trapezium with a common base line.

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4. A seat according to claim 1, wherein the seat is made of shape-retaining material.

5. A chair incorporating the seat of claim 1.

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