

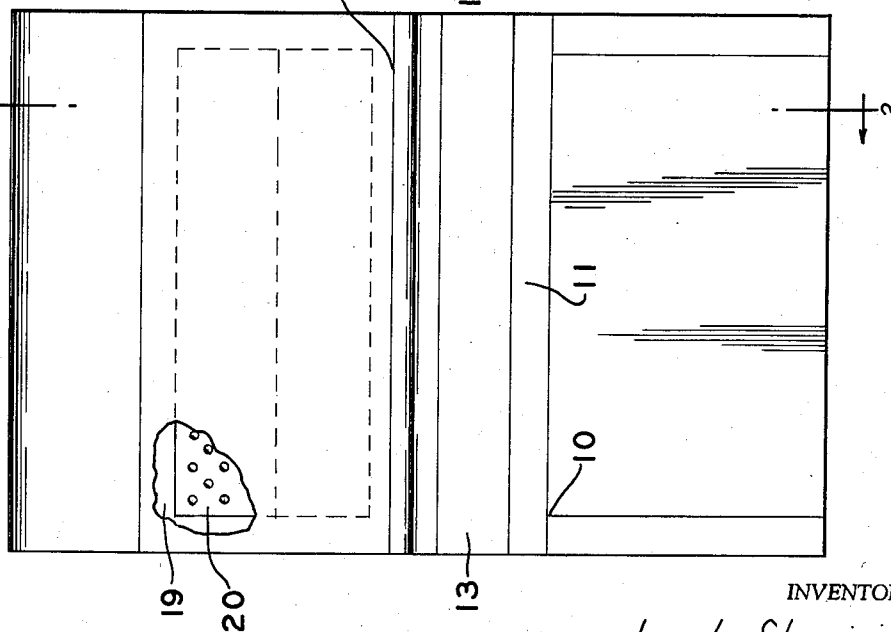
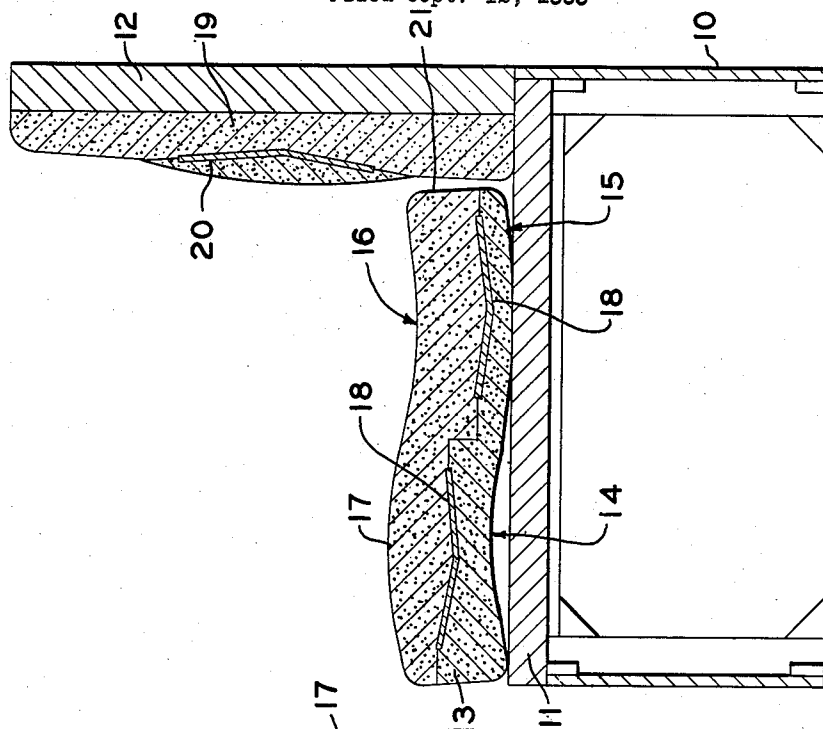
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POSTURE CHAIR

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POSTURE CHAIR

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4 Claims. (Cl. 155—179)

The present invention is a posture chair which is the result of several years of experiments with sponge rubber per se and in combination with springs of different kinds, plates of various contours, etc. While I have found that good results flow from use of sponge rubber with strategically positioned contour plates, optimum posture corrective benefits are only obtainable where these plates of predetermined shape are particularly positioned. Experiments have shown this chair to be most helpful to sufferers from back ailments of various miscellany, particularly those emanating from the lumbo-sacral spine, as well as a comfortable desirable support by persons free of back ills. Further experiments have now demonstrated that this back support may be used to complement a seat of somewhat similar construction to supplement the action of the back support and provide a complete posture chair.

It is therefore within the contemplation of this invention to provide a complete chair which includes a foam rubber seat and back, each of which carries inherently yieldable floating means which respond to seat and back pressure, the seat pressure being transmitted in part to the back to effect inherent movement of the latter into snug bracing engagement with the back of the person seated on the chair.

A further object of this invention is to provide a posture chair which includes a seat of foam rubber with contour plates floatingly mounted in different vertical planes.

The invention, together with its objects and advantages, will be best understood by reading the following detailed description with reference to the accompanying drawings in which is illustrated a presently preferred embodiment of the invention, and wherein:

Fig. 1 is a front elevational view of a posture chair constructed in accordance with this invention, a portion thereof being broken away to disclose details; and

Fig. 2 is a vertical sectional view taken on the line 2—2 of Fig. 1, looking in the direction of the arrows.

The device of this invention includes a chair frame generally designated 10, which includes a seat portion 11 and a back portion 12. It is to be understood that the seat frame may be of any desired construction but it is preferred that the top of the seat be uniplanar from front to back and side to side and also that the front of the seat back be uniplanar from top to bottom and from side to side.

The seat cushion of the present invention, designated 13, is preferably formed of foam rubber and may be made in one piece or of multipartite construction. The lower face of the cushion is cupped or dished out, as indicated at 14, while the aft portion of the lower face of the cushion is slightly rounded as indicated at 15 to normally provide a relatively narrow tapering space between the extreme aft edge of the cushion and the top of the chair seat 11. The top face of the seat cushion is contoured as advantageously illustrated in Fig. 2, providing a dished out zone 16 which receives the buttocks of the user while the forward portion of the cushion top

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is curved or bowed upwardly as shown at 17 for engagement with the underneath portion of the legs of the person seated on the chair. Each seat cushion has embedded therein a pair of plates 18 of identical construction. These plates, as advantageously illustrated in Fig. 2 are preferably perforate and of substantially flat V shape construction. When in position the bottom of each plate extends downwardly into a complementary recess formed in the cushion. Also as will be observed from Fig. 2, these plates are in different vertical planes.

The back cushion 19 comprises a foam rubber body in which a substantially flat V shape perforated plate 20 is embedded. Here the upper and lower marginal edge of the plate faces to the front and is of a length to extend from a point near the base of the spine to a point immediately in back of what is commonly referred to as the shoulder blades. Initial pressure against the plate urges it bodily rearwardly while continued pressure will cause the plate to flex forwardly at a point approximately midway the top and bottom of the plate to exert pressure on the portion of the spine where the greatest support is required.

With the present invention, where the combination seat cushion and back cushion are employed they are mounted on the chair frame substantially as shown in the position illustrated in Fig. 2 and are juxtaposed to provide a cleft 21, the width of which is slightly exaggerated in the drawing to better emphasize the translational movement of the seat cushion. When the cushions are positioned substantially as illustrated in Fig. 2 and pressure applied to the seat cushion under weight of a person sitting in the chair, the seat cushion is compressed to initially carry the plates 18 downwardly after which further pressure causes the plates to flex into nearly a horizontal position, which movement obviously exerts an upward pressure on the buttocks and upper leg portions of the person seated. This movement effects inherent rearward displacement of the extreme aft edge of the cushion so as to force the latter against the lower front face of the back cushion 19 to effect inherent displacement outwardly of the front face of the back cushion. This supplements the action of the plate in the back cushion which results in the back of the person being continuously braced over the area of the back where support is most needed and at the same time the legs of the person seated are braced, supported and cushioned. As will be obvious, during pressure on the seat, the arc or dished out portion 14 in the bottom face of the fore part of the cushion is flattened or substantially flattened depending upon the weight of the person seated and the cushion and plate factors.

Various changes may be made within the scope of the appended claims.

What I claim is:

1. A seat cushion for chairs including a foam rubber body, and a pair of inherently yieldable spaced plates floatingly mounted in said foam rubber body.
2. A seat cushion as defined in claim 1 wherein the plates are substantially flat V shape, the upper margins of both plates extending upwardly.
3. A seat cushion as defined in claim 2 wherein the plates are located in different vertical planes.
4. A seat cushion for chairs including a foam rubber body, and a pair of inherently yieldable plates floatingly mounted in said foam rubber body, the plates of substantially flat V shape, the tops of the V's extending upwardly, said plates being spaced fore, aft and vertically.

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