Nov. 6, 1956 J. SHAPIRO 2,769,485

BACK REST

Filed Aug. 28, 1951

Fig. 1.

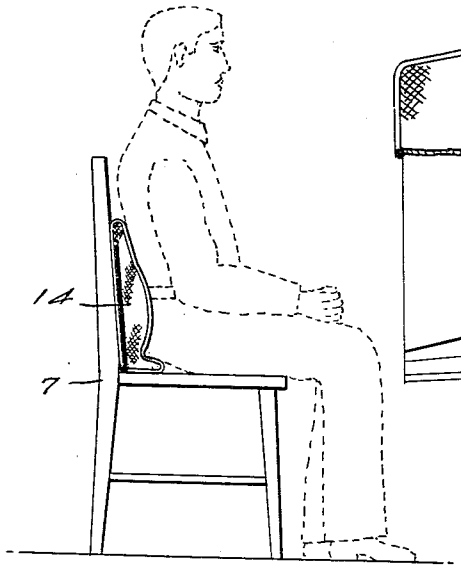
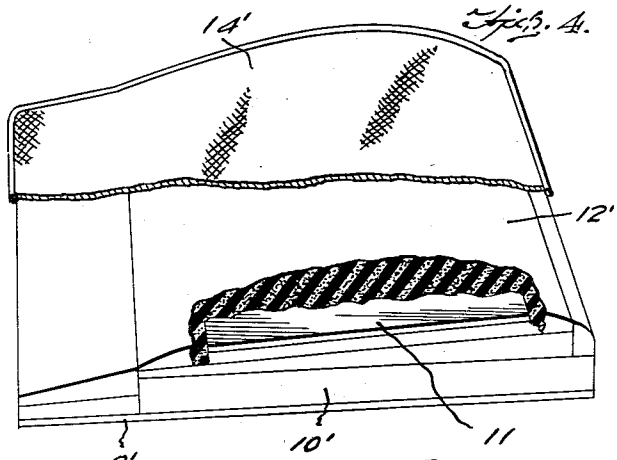


Fig. 4.



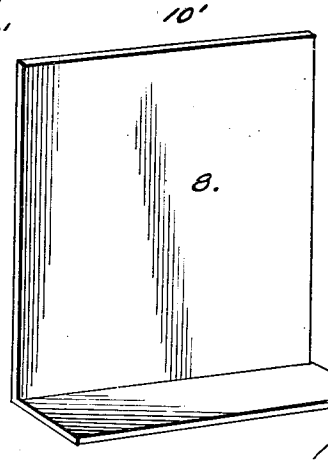


Fig. 3.

Fig. 2.

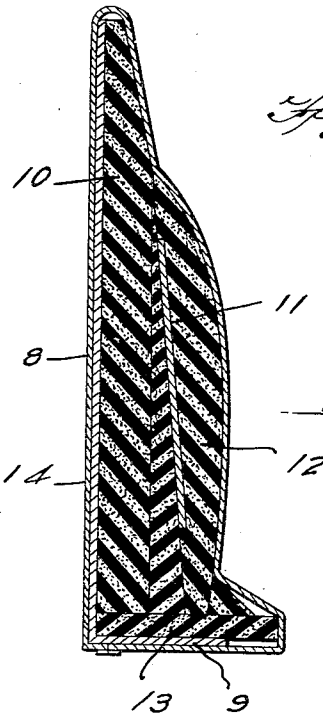
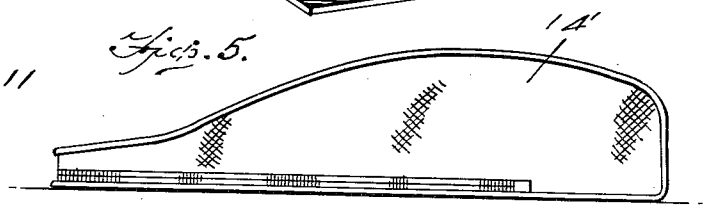


Fig. 5.



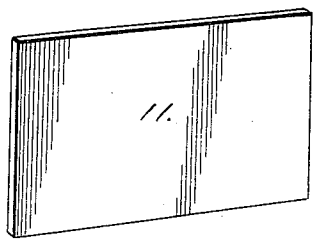


Fig. 6.

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BACK REST

Jacob Shapiro, Baltimore, Md.

Application August 28, 1951, Serial No. 243,981

1 Claim. (Cl. 155—182)

This invention is a back rest primarily intended to support the back while the user is in a sitting position, but is also adapted for use while lying in a bed or on the floor or other horizontal support; the rest in its main embodiment is a separate portable unit but may be incorporated into the back of a seat if desired.

It is an object of this invention to provide a scientifically designed back rest not only to assure comfort while the user is in a sitting position, but is constructed to fit and brace the lumbo-sacral spine with resultant orthopedic benefits. This is accomplished through the use of properly contoured foam rubber cushions in conjunction with strategically positioned inherently rigid plates made of aluminum or like suitable material so that a desirable cushioning effect is obtained yet the spine is positively supported to prevent unnatural spine curvature and to help correct spine malformation due to improper posture.

Another object of the invention is to provide a cushioned back rest which includes a base or back plate of aluminum or like material which is inherently rigid and has secured to one face a contoured foam rubber cushion in which a second plate is embedded, the latter moving as an entity with the cushion when pressure is placed thereon by the user.

Other objects of the invention will be apparent from the following description of the presently preferred forms of the invention, taken in connection with the accompanying drawings, wherein:

Fig. 1 is a side elevational view of one form of the invention illustrating its application;

Fig. 2 is a vertical sectional view of the form of back rest shown in Fig. 1;

Fig. 3 is a perspective view of the base plate used in the form of invention illustrated in Figs. 1 and 2;

Fig. 4 is a fragmentary perspective view of a modified form of back rest;

Fig. 5 is a side elevational view of the form of back rest illustrated in Fig. 4, and

Fig. 6 is a perspective view of a plate embedded in the cushion forming a part of the back rest.

In the drawings in order to illustrate the application of this invention, a chair 7 is illustrated. It is, of course, to be understood that the rest of this invention is intended for use particularly in automobiles and other conveyances and is also adapted for use on any support upon which a person may be seated. Additionally, in the form of the invention illustrated in Figs. 4 and 5, the rest is adapted for use on a floor or other horizontal support.

The form of invention illustrated in Figs. 1, 2 and 3 includes a base plate 8 which is preferably made of aluminum, having a main vertical portion and an extended horizontal portion 9 which may be of any desired length.

The rest further includes a foam rubber cushion generally designated 10 in which a flat rectangular plate 11 is embedded, the margins of the plate being spaced from the margins of the cushion as is apparent from Figs. 2 and 4 of the drawings. The front of the cushion is contoured as indicated at 12 to fit the lumbo-sacral region of the back. While the cushion 10 may be formed in a single unit, it is also practical and feasible to form it in multiple layers or strata, as shown in Fig. 2. In this form of the invention, Figs. 1, 2 and 3, the cushion 10 is supplemented with a foam rubber block 13 which is superimposed on the right angle horizontal portion 9 of the base plate. In actual use I have found that good results are obtained by extending the forward end of the block in advance of the forward margin of the portion 9, as shown in Fig. 2, so that said forward edge will fit below the buttocks of the user and beneath the spine.

The rest further includes a zippered cover 14 made of any suitable fabric.

In the form of invention illustrated in Figs. 4 and 5, a base plate 8' is shown which omits the right angle portion 9 of the form of invention shown in Figs. 1, 2 and 3. Otherwise the plate is the same as shown in Fig. 3. A cushion 10' of identical construction to the cushion 10 is also employed in which a plate 11 is embedded, the outer wall of the cushion being contoured as indicated at 12' and the entity encased in a zippered fabric cover 14'. This form of the invention may be used as a back rest in exactly the same manner as the form of invention shown in Figs. 1 to 3 if desired. However, it is further adapted for use on a bed, floor or other horizontal support so that the user may derive the benefits flowing from the rest, in accordance with the teachings of this invention, while lying down.

In use of this invention, whether used while in a sitting position or lying down, the base plate is engaged with a fixed object such as a seat back, bed, floor or the like. When pressure is exerted on the contoured portion of the cushion, the inside plate 11 is moved toward the base plate 8 or 8', depending upon the form of back being used. This I have found from experience gives a desirable cushioning effect to the back yet the spine is definitely braced. The rest is particularly useful where the body is subjected to shocks such as are occasioned while traveling in a motor vehicle.

Although I have herein illustrated two forms of my invention, it is understood that various changes may be made therein within the scope of the claim hereto appended.

What I claim is:

A back rest comprising a base plate having a vertical portion and a horizontal portion, an elastic block superimposed on the horizontal portion of the base plate, an elastic cushion mounted on said block and secured to the vertical portion of the base plate, and a plate embedded in said cushion the margins of said plate being spaced from the margins of the cushion.

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