

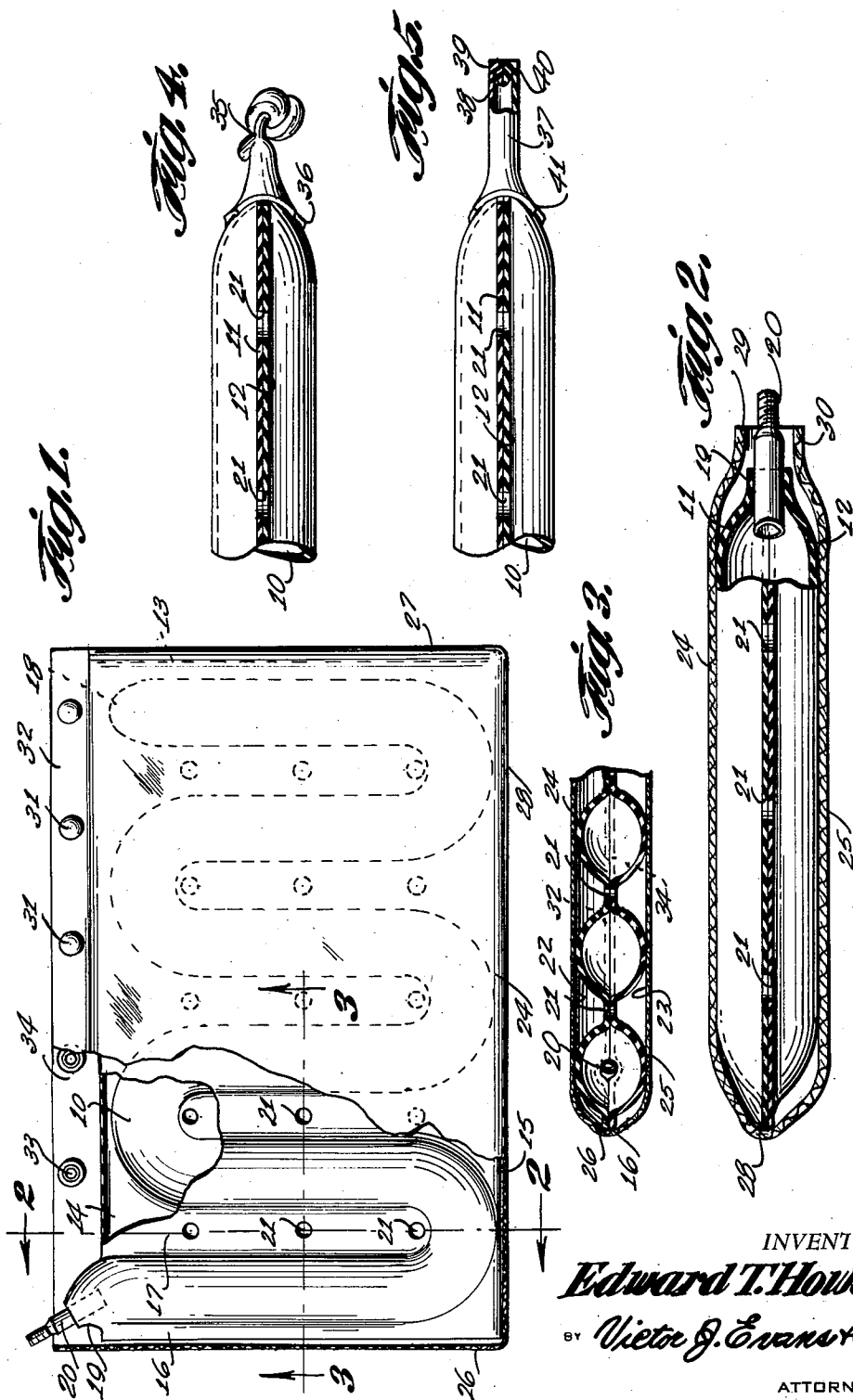
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COMFORT MAT

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2,804,911

COMFORT MAT

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6 Claims. (Cl. 155—182)

This invention relates to mats, head rests, cushions, soft comforts, or the like that are particularly adapted for use in seats of motor vehicles, chairs, and particularly reclining chairs, and that are also adapted to be carried on picnics and other outings or used for seats at sporting events, such as baseball and football games, and in particular a rectangular shaped casing providing a mat and having a continuous sinuous air chamber therein with an envelope or cover that is adapted to be removed for cleaning and that provides air chambers on both sides of the sinuous air chamber, the air chambers at the sides of the sinuous air chamber being in communication through openings positioned between sections of the air chamber.

The purpose of this invention is to provide an improved mat or soft comfort in which air pressure is adapted to be regulated to provide a soft head rest or a relatively stiff seat.

Various types of pneumatic cushions have been used for different purposes, however, where such cushions are used in motor vehicles, they are too stiff for a head rest and, in numerous instances, too soft for a seat, and it is difficult to adjust the positions of the cushions of conventional design so that the air is of the same pressure throughout the area thereof. With this thought in mind, this invention contemplates a cushion or mat having a sinuous air channel with openings between sections of the channel and with the device enclosed in a cover or envelope, whereby fluid is evenly distributed throughout the area of the cushion and wherein the pressure of the fluid is readily adjustable.

The object of this invention is therefore, to provide means for forming a mat whereby the air is uniformly distributed throughout the area of the mat.

Another object of the invention is to provide an improved comfort mat in which an outer envelope or cover thereof is adapted to be removed for cleaning whereby the device may be retained in a clean and sanitary condition.

A further object of the invention is to provide an improved soft comfort in which fluid pressure is evenly distributed throughout the area of the comfort and in which the pressure of the fluid is readily adjustable in which the device is of a simple and economical construction.

With these and other objects and advantages in view, the invention embodies a continuous sheet of material folded upon itself with spaced parallel portions extended inwardly from opposite edges and alternately secured together by heat sealing or the like whereby a continuous sinuous air chamber or fluid channel is provided and in which openings are provided between the sections of the chamber, said sinuous air chamber being formed with one end sealed and with a threaded tube in the opposite end, and a cover adapted to be positioned over the sinuous air chamber.

Other features and advantages of the invention will

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appear from the following description, taken in connection with the drawing, wherein:

Figure 1 is a plan view of the improved mat with parts broken away showing the interior thereof.

5 Figure 2 is a cross section through the mat taken on line 2—2 of Figure 1, with the parts shown on an enlarged scale, and illustrating the mounting of a filling tube in one end of the sinuous air chamber.

10 Figure 3 is a longitudinally disposed section taken on line 3—3 of Figure 1 showing sections of the sinuous air chamber at one end of the cushion.

Figure 4 is a cross section through one side of the mat, somewhat similar to that shown in Figure 2, illustrating a modification wherein the filling tube is replaced with an elongated tube that is adapted to be knotted for sealing.

15 Figure 5 is a section also similar to that shown in Figure 2 showing a further modification wherein the inlet tube of the channel of the mat is replaced with a self-sealing air tube.

20 Referring now to the drawing, wherein like reference characters denote corresponding parts, numeral 10 indicates a sinuous chamber or channel formed between layers 11 and 12 of a continuous sheet of material folded upon itself at point 13 and connected, by heat sealing, or the like, at sides 14 and 15, and the end 16 and on webs 17 positioned between sections of the air chamber or fluid channel 10, the sections 17 providing the webs being alternately positioned and extending inwardly from the opposite edges 14 and 15, as illustrated in Figure 1. By this means, a continuous open chamber 10 is formed between two layers of material and the layers of material are connected whereby an end 18 of the chamber is closed and an end 19 is provided with a threaded tube 20, or the like whereby air may be supplied to the chamber with a conventional air hose of a filling station or the like. The tube 20 may be provided with a cap or suitable closure. The fluid pressure in the chamber 10 may be reduced by releasing fluid through the tube 20.

25 The webs 17 are provided with openings 21 providing communicating means between open chambers 22 and 23 on opposite sides of the chamber 10.

30 The mat is provided with an envelope or cover having spaced walls 24 and 25, edges 26, 27 and 28 of the walls 24 and 25 being connected or integral and edges 29 and 30 being adapted to be connected with snap fasteners having sections 31 in a strip 32 on the edge 29 of the wall 24 and sections 33 in a strip 34 on the edge 30 of the wall 25.

35 With the cover formed in this manner, it may readily be removed for cleaning whereby the element with the open chamber 10 therein is adapted to be protected from wear and also from being soiled by contact with hair of a head or the like.

40 In the design illustrated in Figure 4, the open chamber 10 of the air valve 20 is replaced with a tube 35, of rubber or the like, and the mat may be inflated by blowing through the tube and in this design the cushion is adapted to be sealed by tying a knot in the tube. In this design, the tube 35 is provided with a rim or flange 36 that is secured to the surfaces of the layers 11 and 12 by cement or by heat sealing, or the like.

45 In the design illustrated in Figure 5, a tube 37 of the type having a slit 38 between sections 39 and 40 at the end of the tube and forming a self-closing valve, is secured by a flange or rim 41, to the outer surfaces of the layers 11 and 12. In this design the mat is inflated by inserting a needle of an air pump or the like through the slit 38 in the end of the tube 37. Although it is preferred to form the mat of a plastic material, impervious to air and moisture, it will be understood that the mat may be formed of rubber or other suitable material, and the mat

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may also be provided in different sizes. The chamber 10 may also be formed with a tube patterned as shown by the dotted and full lines in Figure 1, and the sections may be retained in the position shown by suitable means. The mat of the present invention can be used for any desired purpose.

Although the device is adapted to be filled with air, the sinuous air chamber is also adapted to be filled or partly filled with hot or cold water, to supply heat or cold as desired.

It will be understood that other modifications, within the scope of the appended claims, may be made in the design and arrangements of the parts without departing from the spirit of the invention.

What is claimed is:

1. A mat comprising a sheet of material folded upon itself to provide upper and lower layers and with the upper and lower layers connected by alternating oppositely positioned inwardly extended webs providing a sinuous channel between the webs of said sheet of material, and a tube secured in the layers of material and positioned to extend into said sinuous channel.

2. A cushion comprising a sheet of material folded upon itself to provide upper and lower layers and with the upper and lower layers connected by alternating oppositely positioned inwardly extended webs providing a sinuous channel between the webs of said sheet of material, an inlet tube secured in the layers of material and positioned to extend into said sinuous channel, and an envelope having snap fasteners in one side providing a cover and adapted to be positioned over the element having the sinuous air channel therein.

3. A mat comprising a sheet of material folded upon itself to provide upper and lower layers and with the upper and lower layers connected on alternating oppositely positioned inwardly extended webs providing a sinuous channel between the webs of said sheet of material, an inlet tube secured in the layers of material and positioned to extend into said sinuous channel, and an envelope having snap fasteners in one side providing a cover and adapted to be positioned over the element having the sinuous channel therein, the portions of the element positioned between the sections of the mat having the sinuous channel therein forming the web and having openings therethrough.

4. In a mat, the combination which comprises a continuous sheet of material folded upon itself providing abutting layers and said layers having alternately positioned webs extended inwardly from opposite sides wherein the layers are joined and wherein a sinuous channel is

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provided between the webs, one end of said channel being closed and the other provided with inflating and deflating means, and an envelope, three edges of which are closed and the remaining edge of which is adapted to be closed with snap fasteners positioned over the element in which the sinuous channel is provided.

5. In a mat, the combination which comprises a continuous sheet of material folded upon itself providing layers and said layers having alternately positioned webs extended inwardly from opposite sides wherein the layers are joined and wherein a sinuous channel is provided between the webs, one end of said channel being closed and the other provided with inflating and deflating means, and an envelope, three edges of which are closed and the remaining edge of which is formed to be closed with snap fasteners positioned over the element in which the sinuous channel is provided, the webs between sections of the sinuous channel having openings therethrough providing communicating means between open chambers in the sides of the element.

6. A support member comprising a continuous sheet of material folded upon itself to provide upper and lower layers, said layers being of the same shape and size, said upper and lower layers having alternately positioned webs extended inwardly from opposite sides wherein the layers are joined and wherein a sinuous air channel is provided between the webs, one end of said air channel being closed and the other being provided with an air inflating and deflating means for supplying air to the channel or withdrawing air from the channel, an envelope, three edges of said envelope being closed and the opposite or other edge of said envelope being closed with snap fasteners positioned over the element in which the sinuous air channel is provided, said snap fasteners being arranged adjacent the outer edge of the support member, the webs between sections of the sinuous air channel having a plurality of openings therethrough providing communicating means between air chambers on upper and lower sides of the element, said envelope adapted to be selectively removed and whereby when the envelope is in position on the support member, the parts will be protected from wear and will also be protected from becoming soiled by contact with hair of a head or the like.

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