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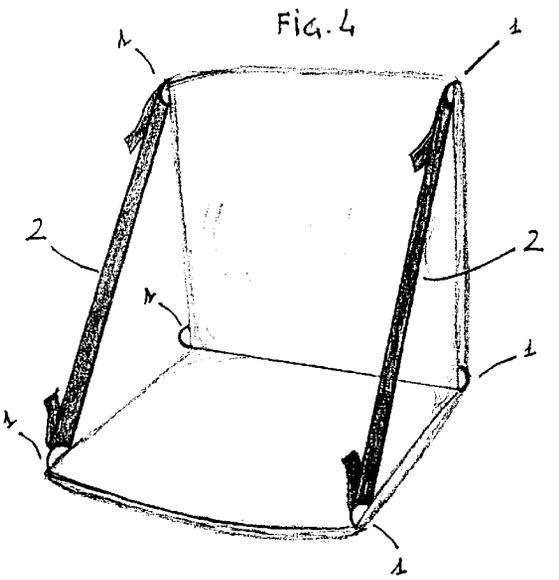
(54) Foldable, portable orthopaedic chair, with adjustable features on the seat and back, physiologically supporting the lumbar lordosis

(57) It is a portable, foldable seat, very simply made, which allows to sit everywhere giving great support to the back, as it allows an ergonomically correct position to the spine. The orthopaedic seat is made of textile or other industrial material with similar aim folded in an L-shape which lets elements of various. material be inserted or taken out in order to arrange for the support and the push to the lumbar region.

Fig. 4



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Description

[0001] This patent, as per its utility pattern, concerns an orthopaedic device. Precisely, it is a new, simply made, foldable, portable, adjustable orthopaedic seat. The main characteristics are the adjustable features in the lumbar region, for the back, and in the pelvis supporting region, for the seat.

[0002] There is a great demand for a correct seating posture among those who have spine diseases, those who hold a seated position for a long time, those who want to avoid mechanical diseases to the spine. The right posture strictly depends on the possibility to adapt and vary back and seat surfaces to the need of everyone's physiology, pathologic situations included. Besides, some specific pathologies as, for instance, slipped disc, need to modify, from time to time, the lumbar support or the pelvis inclination, as the disease gets better or worse. Many people affected by these problems or simply wishing to avoid them have often to adapt themselves to uncomfortable seats, at home or outdoor, and they are often limited even in their spare time.

[0003] The orthopaedic seat can be put over all the seats that cause uneasiness and/or pathologies, if used for long period (as, for instance, office armchairs, sofas and motorcar seats without a correct support to the lumbar region and/or a good support to the back). It allows to keep the right posture even in all those situations when there is no support to the back, as it has an orthopaedic back along with a support basis, isolating uncomfortable surfaces (as, for instance, stadium, parks, amphitheatres and other outdoor places).

[0004] These goals are all reached thanks to a portable, foldable, orthopaedic chair. It has just one textile pocket where you can put in, take out or partially overlap rigid, half rigid elements or industrial materials. The pocket, folded in an L-shape, forms a surface for the back and a surface for the seat. The rigid or half rigid elements consist, for instance, of plastics, rubber, wood and they allow the desired ergonomic and therapeutic characteristics. The elements can be put in small sections inside the main pocket or in openings that make them get through the pocket itself.

[0005] These elements may have, for instance, a rigid starve-shape, connected one another by other devices, as rubber or textile, that allow free movements, or they may have a whole surface with variable thickness. The structure inside the back side of the pocket is made of two strips. Their extremities support one or more other strips. These ones are slipped inside the pocket parallel to the seat, through two holes. Levering on these supports, and passing behind the elements filling the central part of the structure, the central portion of the pocket can be easily moved on (picture 2a). The strips/s. are reachable from outside. Thanks to the up and down slipping through the hole of the horizontal strip(s), the user will easily control the position of the bending point. The strips width, shape and thickness will allow to control the kind of pushing and shape needed for the lumbar region support. The pocket central section corresponding to the back is filled of half rigid or structured materials such as rubber or else. Or it can be filled by structures made of more rigid materials connected among them by movable elements, as textile, rubber or else. These elements allow the support articulation and structure.

[0006] The following description illustrates more characteristics and details about the orthopaedic seat. It is a suggestion, but it can have many other applications.

1st picture :

it shows the structure schematic view in rigid or half rigid materials. It is connected by rubber or other flexible material strips (L) inside
the back pockets
the seat pockets

2nd picture :

it shows a schematic view of the 1st picture structure, with a crossing strips inside
the back
the seat

3rd picture :

it shows a schematic view of the seat posterior section and
A1) its opening for the structures to be slipped inside the seat
A2) its opening for the structures to be slipped inside the back
the side opening where to insert and regulate the crossing strip.

4th picture :

It shows :
connecting rings for belts
fixing belts

Claims

1. Portable, foldable, orthopaedic chair with the possibility to put in, take out or partially overlap rigid, half rigid elements or industrial elements inside and/or through the only textile pocket. The pocket folded in an L-shape gives a surface for the back and a surface for the seat.

2. Portable, foldable, orthopaedic chair as per claim n. 1 with devices which let the belts be filled in order to fix the seat to other surfaces, or to fix the seat to the back.

3. Portable, foldable, orthopaedic chair as per claim n. 1 whose textile or similar industrial material can be filled.

4. Portable, foldable, orthopaedic chair as per claim n. 1 whose rigid or half rigid elements inside the pocket can be made of woody, plastic or rubber materials and are connected among them by flexible strips (as textile, rubber or else), letting them move.

5. Portable, foldable, orthopaedic chair as per claim n. 1 whose rigid or half rigid elements can fill small sections inside the main pocket. The pocket actually can have e two or more openings on the back portion which allows the insertion of external elements, as regulators.

6. Portable, foldable, orthopaedic chair as per the above claims whose back part structure is made of rigid or half rigid elements of different sizes, regularly and consecutively put between two vertical and lateral strips.

7. Portable, foldable, orthopaedic chair as per the above claims which has the possibility to put horizontally the seat surface one or more rigid strips. They can be slipped in through the opening inside the back pocket and leant on the external, vertical and lateral strips of the structure itself In this way, a lever effect will let the central part of the structure and the pocket slip forward.

8. Portable, foldable and orthopaedic chair as per the above claims, whose structure, made of parallel strips and put on the seat portion of the pocket, can be crossed by one or more strips. These strips pass perpendicularly up above the two strips aside and beneath the majority of the intermediate strips (all replaceable by a unique structure), letting the seat surface be lifted.

9. Portable, foldable and orthopaedic chair as per the above claims whose strips, made of rigid or half rigid materials, horizontally put inside the seat and the back, have variable and gradual shape and thickness (thanks also to the different materials they consist of).

10. Portable, foldable and orthopaedic chair as per the above claims whose rigid or half rigid strips, horizontally put inside the seat and the back, can lean on thick material of different shape and size, between these strips and the vertical ones.

11. Portable, foldable and orthopaedic chair as per the above claims where all the internal structures, or just one of them, can be folded along with the seat itself inside a bag, with belts and laces, to make its transport easier.

Fig. 1

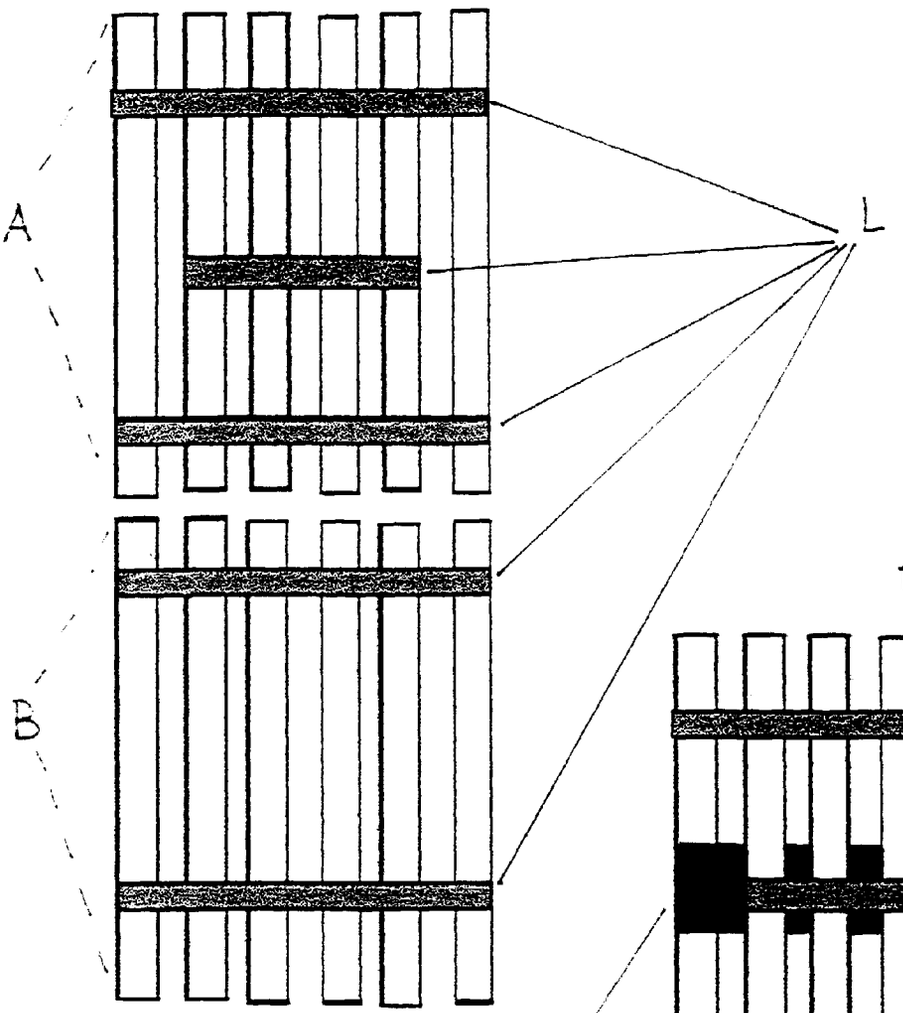
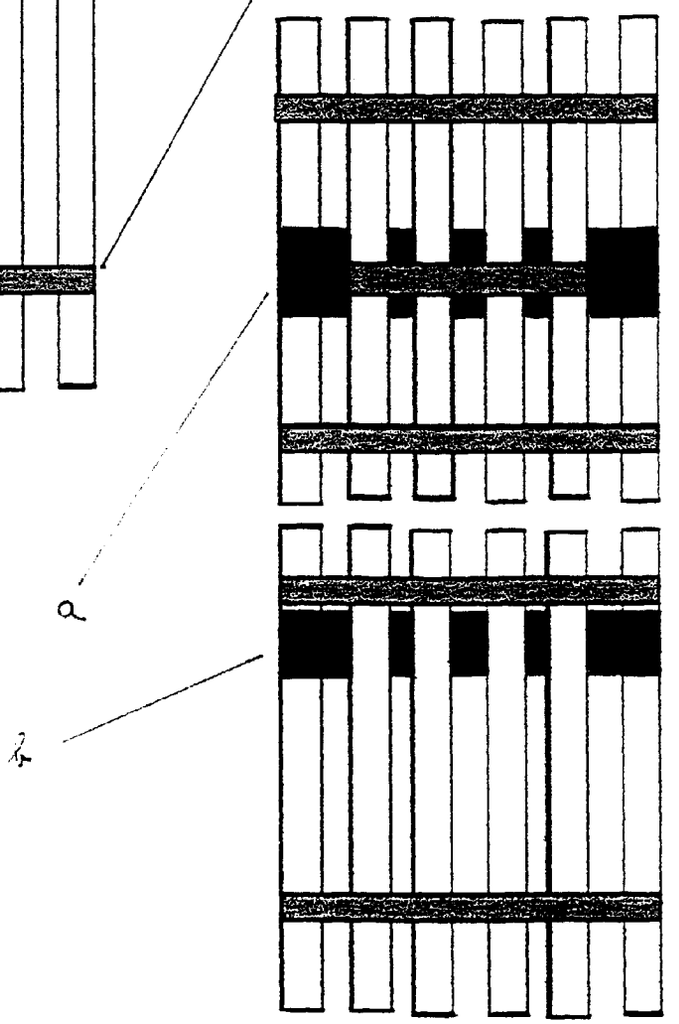


Fig. 2



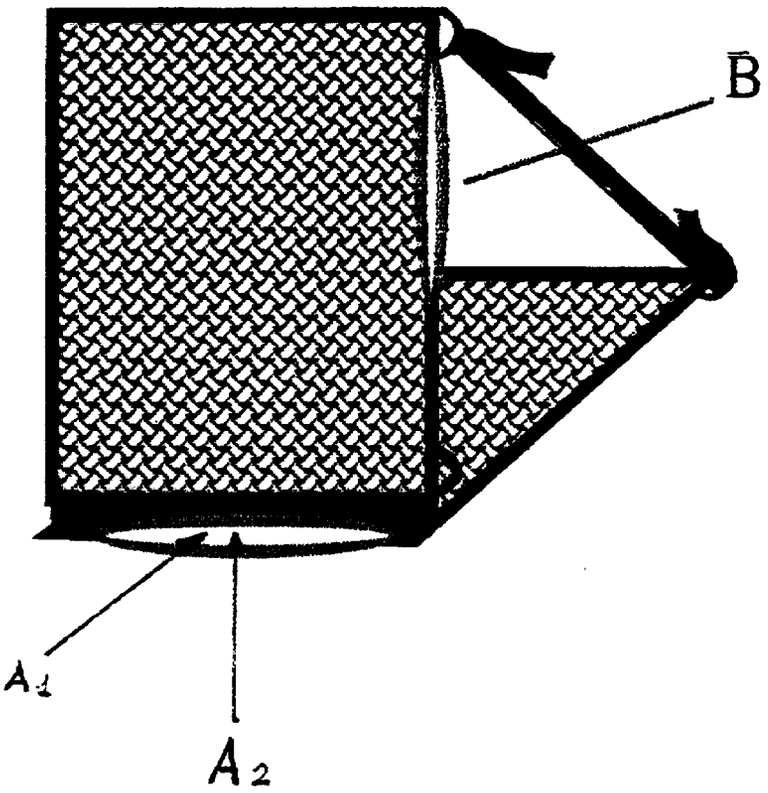


Fig. 3

Fig. 4