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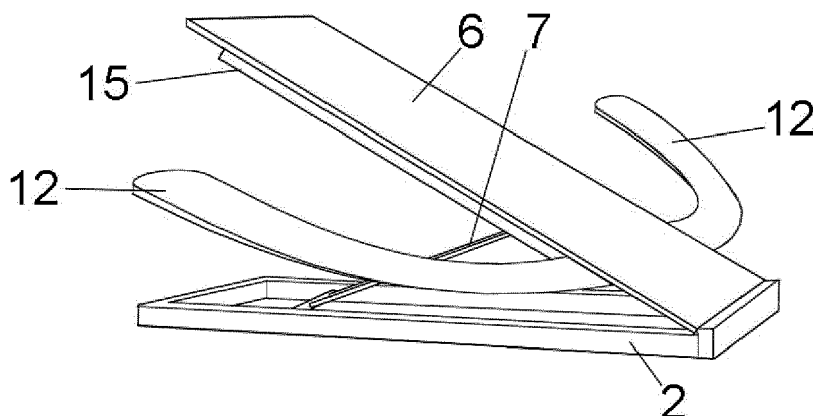
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(54) **Attachment for reclining chairs and similar products**

(57) The invention is applicable to anything which has a movable backrest and can recline to different angles in relation to horizontal. Also, it is applicable to devices which contain at least one rectangular frame (2), upon which a panel (6) is hinged which can recline to different angles. The legs (11) are attachable and detachable and can be any length. The invention is centred

upon the addition of an extra piece (15), which is attached to the rear of the panel which supports the back (6), and has the means of joining a pair of arched arm rests (12), in a way in which they can be adjusted and moved to different positions depending of the height of the user. These arm rests always remain parallel to the panel which supports the upper back and when this panel is reclined, the arm rests are too.



**FIG. 1**

## Description

### PURPOSE OF THE INVENTION

[0001] This invention refers to an attachment which is applicable to anything which has a back rest which can move and achieve different angles other than horizontal.

### BACKGROUND OF THE INVENTION

[0002] It is unknown whether or not attachments exist for reclining chairs with the same characteristics and functions as this one.

### DESCRIPTION OF THE INVENTION

[0003] The attachment for reclining chairs has been invented in order to gain new benefits and effects which have yet to be attained by any other conventionally known reclining chairs.

[0004] More specifically, the invented attachment comes from the conventional structure of a reclining chair and consists of two rectangular frames which are joined hinge wise; ensuring that one of them is longer than the other. As they are both the same width and both incorporate a panel which is hinged to the respective frame, this offers the possibility to tilt from an inoperative or horizontal position, to a vertical one. This permits the user to achieve different reclining positions, thanks to a bracket which is jointed on one side to the rear face of the panel and connected to the frame on the other side by an internal rail which slides the bracket in order to slide the rail and can be anchored in at any point the user decides in order to obtain the desired inclination of the panel.

[0005] One of the panels is used to support the torso of the user whilst the other is used to support the legs; the longest panel supporting the legs and the shorter panel supporting the upper body.

[0006] Beginning with the conventional structure, the invention is characterised by the fact that this structure is also complemented by armrests which are detachable and offer the advantage of being able to be set at different heights, with respect to the shortest panel which corresponds to the panel which supports the back of the user. This is necessary in order to achieve its function regardless of the height of the user or their position in respect to the shortest panel. These arm rests are flat and slightly arched and at one end, an anchorage system is included whereby they are fitted onto the rear, interior of the shorter panel which supports the back of the user. The arm rests will support the arms of the user and always remain the same distance apart thanks to the arm rests being slightly arched.

[0007] Even though the structure or reclining chair is expected to be used directly on the floor, the frames can be used alongside leg panels of different heights and in this way the chair meets the demands of the user. The

legs can be different lengths, thus setting the panels of the chair at a higher or lower level.

[0008] The device described allows the user to stretch their muscles easily and comfortably and allows them to keep their arms aligned correctly during these stretching exercises. This eliminates the body's need to offset the effects of the stretching and rebalance of the shortened muscles.

[0009] Thanks to the two panels, it is possible to adjust and establish different positions or angles depending on the availability and possibilities of the user, ensuring that they avoid a forced position which makes it difficult to execute the exercises well, especially for those with limited flexibility, inflexibility of the muscles or elderly people.

[0010] According to the characteristics of the reclining chair, the following advantages can be achieved:

- Maintain the correct body posture during stretching exercises.
- Reduce and eliminate counter-balance.
- Progressively adjust the intensity of the stretch thanks to two movable planes (more closed angles offer a better intensity of stretch and vice versa).
- Adapt the intensity of the stretch depending on the requirements and possibilities of each person.

[0011] On the other hand, we can say that the desired and achieved objectives of the invented device can be summarised as the following:

- a) Rebalance muscle tensions.
- b) Achieve better posture.
- c) Achieve better muscle elasticity.
- d) Achieve better mobility.
- e) Achieve better blood flow by mechanical action.
- f) Achieve a better, overall physical condition and help to relax you.

[0012] The invention can be used by people of all ages. In the case of those suffering from special medical conditions, it is recommended that the user contact their doctor before using this product.

### DESCRIPTION OF THE DRAWINGS

[0013] To complement the following description, a set of illustrative and unlimited drawings are included, contributing to a better understanding of the invention itself and demonstrating a benchmark example of its practical application, which is represented in the following:

Figure 1.- Shows a perspective representation of the back of a product (being a reclining chair, bed, deck chair etc...) which incorporates arm rests which are the purpose of the invention, in a reclined position in relation to the panel.

Figure 2.- Shows a frontal, schematic view of the

invention with the arm rests; the arrows show the area where the forearm of the user would be supported.

Figure 3.- Shows a lateral view of the two arm rests which form part of the reclining chair which is represented in the previous figures.

Figure 4.- Shows a representation of an example of a reclining chair for which the invention would be applicable; a reclining chair with supporting legs to elevate the panel off the floor.

## PREFERRED APPLICATION OF THE INVENTION

[0014] As can be seen in the referenced figures, the invented device is applicable to many different types of reclining chairs, in the chosen example, which is not to say that other examples could not be used, the reclining chair includes a rectangular frame (2), mounted upon which there is a hinged referenced (4) panel (6), which can occupy positions of different angles, which is held in these positions by a rear bracket (7), which on one side is articulated to the rear face of the panel and on the other side it slides the frame (2) on a lateral, internal rail. This rail has to have a space at each end to accommodate it (7) in order to maintain the reclined position of the corresponding panel (6).

[0015] The frame (2) includes legs (11) which are attachable and detachable and can be any length.

[0016] In accordance with the fundamentals of the invention, the panel (6) which supports the torso of the user, is complemented by two arm rests (12) which are equipped with two rods or bars (13) on one end in order to insert them into holes made on the sides of a piece (15) situated on the interior part of the main panel (6).

[0017] These arm rests are arched in a way which allows the forearm of the user to always be supported in the same place depending on the variation of the angle created by the arms when they are open or closed.

[0018] The arm rests (12) stay on the same level as the panel (6) and remain attached without moving position even if the angle of the panel is changed.

[0019] In figure 2 we can see, thanks to the arrows (16), how the forearm would be supported in the same area of the arm rests (12) and how as a consequence of this, the arm rests (12) are flat but also slightly curved.

[0020] The piece (15) which is to the rear of the main panel and supports the arm rests (12), has many holes which are all the same distance apart, two of which allow the insertion of the two rods or bars (3) on the arm rests (12), which allow the possibility of changing the position of the arm rests (12) in order to adapt to the height of the user.

[0021] It's worth mentioning that the circular design of the arm rests (12) would have a radius which would allow the continual support of the upper arm, if the arms are out stretched and crossed or pulled in closer to the body.

## Claims

1. st.- Accessory for reclining chairs is applicable to anything which has a movable backrest and can recline to different angles in relation to horizontal. Also, it is applicable to devices which contain at least one rectangular frame (2), upon which a panel (6) is hinged which can recline to different angles. The legs (11) are attachable and detachable and can be any length. It is **characterised by** the addition of an extra piece (15), which is attached to the underside of the panel which supports the back (6), which enables two arched arm rests (12) to be joined to its sides. They always remain on the same level as the panel (6) even if the angle of the panel is modified.
2. nd.- Accessory for reclining chairs and similar products, in accordance with claim 1, is **characterised by** a unique system of attaching arm rests which can function when being used by people of any height and work thanks to an anchorage system which attaches them to a bracket situated on the rear underside of the backrest (6) and enables the user to anchor in at different positions depending on the height of the user
3. rd.- Accessory for reclining chairs and similar products, in accordance with claim 1, is **characterised** as the arm rests (12) contain a flat section made preferably from metal, which is situated on the same level as the corresponding panel (6) and is fixed to it in an unmovable position, even if the angle of the panel (6) is modified in relation to the corresponding frame (2).
4. th.- Accessory for reclining chairs and similar products, in accordance with the previous claims, is **characterised** because the circular trajectory of the arm rests (12) corresponds to the approximate radius of the average length between the shoulder and centre of the forearm of the user.
5. th.- Accessory for reclining chairs and similar products, in accordance with the previous claims, is **characterised** because the frames (1 and 2) are able to be joined to attachable and detachable legs (11) of any length in order to set the panels (5 and 6) at a variety of heights.

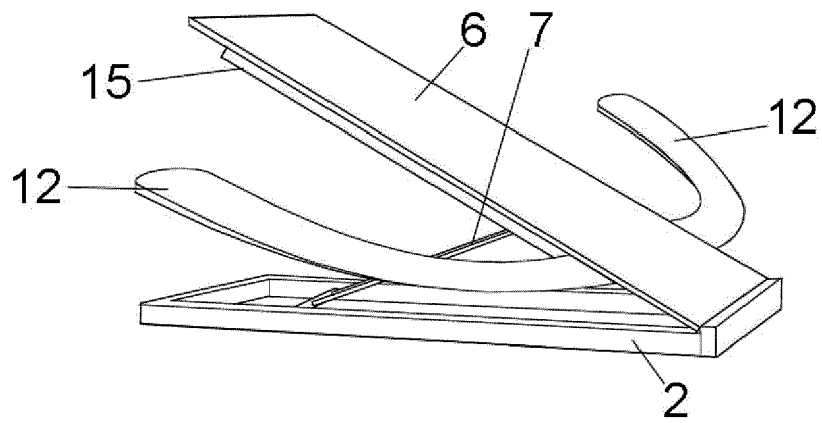


FIG. 1

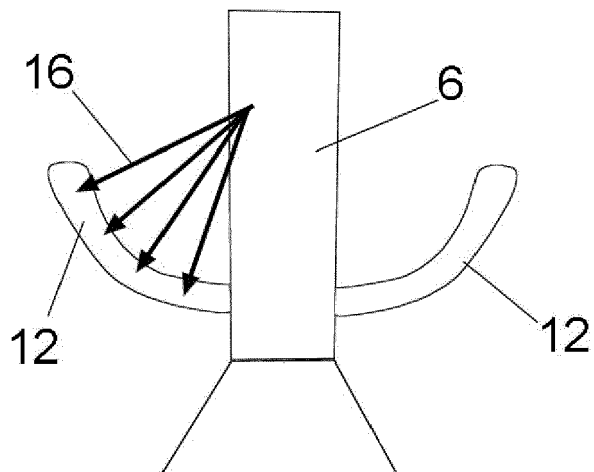


FIG. 2

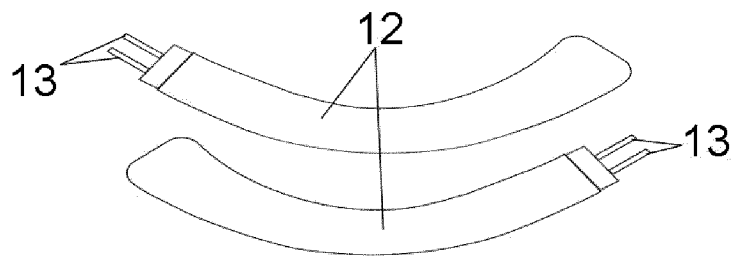


FIG. 3

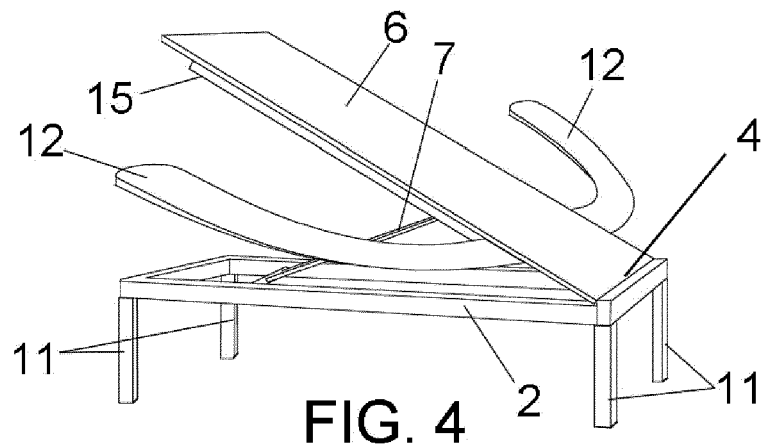


FIG. 4



## EUROPEAN SEARCH REPORT

Application Number  
EP 12 38 2275

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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			TECHNICAL FIELDS SEARCHED (IPC)
			A47C
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 7 November 2012	Examiner Kis, Pál
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons &amp; : member of the same patent family, corresponding document</p>			

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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 12 38 2275

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
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07-11-2012

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82