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(54) **Reclining support for backs of sofas or chairs**

(57) Reclining support for backs (4, 5), which comprises upper fixing members (2) and lower fixing members (3) for fixing portions (4, 5) of a back, wherein some fixing members (2, 3) are pivoted to a horizontal shaft (6)

which is in turn pivoted to fixed supports (7) through first levers (8) perpendicular to this shaft (6), second levers (9) being pivoted between some fixing members (2) and the fixed supports (7) for making up an articulated quadrilateral (2, 7, 8, 9).

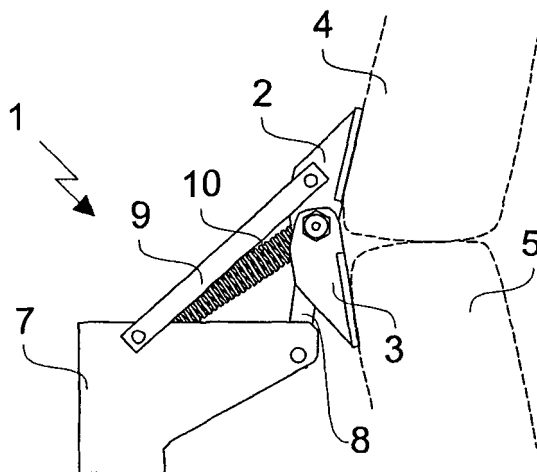


Fig. 1

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Description

[0001] The present invention relates to a reclining support for backs, and in particular to a support which can be mounted onto reclining chairs or sofas.

[0002] Known reclining supports comprise upper and lower fixing members for fixing two portions of a back which can be reclined in a different and/or independent manner from each other. For this purpose, the fixing members are generally mounted onto a fixed support by means of horizontal pins, so that each portion of the back can be manually rotated by the user. However, these known supports have a poor comfort of use since they do not allow a smooth movement of all the portions of the back.

[0003] It is therefore an object of the present invention to provide a reclining support free from said disadvantage. Said object is achieved with a support, the main features of which are disclosed in the first claim and other features are disclosed in the subsequent claims.

[0004] Thanks to the articulated quadrilaterals made up of some fixing members, of the fixed supports and of the first and second levers, the support according to the present invention allows to rotate the two portions of the back with a smooth movement, especially if these articulated quadrilaterals are mutually connected by a horizontal shaft.

[0005] According to a particular aspect of the invention, the horizontal shaft can be connected to the fixed supports by pulling elastic means, so as to facilitate the transformation from the upright position of the back to the reclined position, and vice versa.

[0006] Further advantages and features of the support according to the present invention will become clear to those skilled in the art from the following detailed and non-limiting description of an embodiment thereof with reference to the attached drawings, wherein:

- figure 1 shows a side view of a reclining support in an upright position;
- figure 2 shows a front view of the support of figure 1;
- figure 3 shows a partial top view of the support of figure 1;
- figure 4 shows a side view of the support of figure 1 in a reclined position;
- figure 5 shows a front view of the support of figure 4; and
- figure 6 shows a partial top view of the support of figure 4.

[0007] Figures 1 to 3 show a reclining support 1, which comprises in a known way upper fixing members 2 and lower fixing members 3 which are provided with perforated plates for fixing two portions 4, 5 (partially shown with broken lines in figure 1) of a back.

[0008] According to the invention, the fixing members 2, 3 are pivoted to a horizontal shaft 6, in turn pivoted to a pair of fixed supports 7 through a pair of first levers 8

perpendicular to this shaft. The fixed supports 7 can be fixed to the structure of a chair or a sofa. A pair of second levers 9 are pivoted between the upper fixing members 2 and the fixed supports 7, while a pair of pulling elastic means, for example two springs 10, are fixed between the horizontal shaft 6 and the fixed supports 7, more precisely a pin 11 protruding inside each fixed support 7.

[0009] Referring also to figures 4 to 6, it is seen that at least one of the two portions 4, 5 of the back can be inclined by pushing or pulling this portion, for example the upper portion 4. The upper fixing members 2 thus rotate around the horizontal shaft 6, which is pushed forwards by the movement of a pair of articulated quadrilaterals made up of an upper fixing member 2, of a fixed support 7, of a first lever 8 and of a second lever 9. This reclining movement of the back is opposed by springs 10 up to the overcoming of a deadlock, beyond which it is instead assisted. Therefore, for restoring the back in the upright position, it is sufficient to push or pull portion 4 of the back up to overcome said deadlock, after which springs 10 pull the horizontal shaft 6, thereby restoring the reclining support 1 to its initial position.

Claims

1. Reclining support for backs (4, 5), which comprises upper fixing members (2) and lower fixing members (3) for fixing portions (4, 5) of a back, **characterized in that** some fixing members (2, 3) are pivoted to a horizontal shaft (6) which is in turn pivoted to fixed supports (7) through first levers (8) perpendicular to this shaft (6), second levers (9) being pivoted between some fixing members (2) and the fixed supports (7) for making up an articulated quadrilateral (2, 7, 8, 9).
2. Support according to the previous claim, **characterized in that** the second levers (9) are pivoted between the upper fixing members (2) and the fixed supports (7).
3. Support according to one of the previous claims, **characterized in that** both the upper fixing members (2) and the lower fixing members (3) are pivoted to the horizontal shaft (6).
4. Support according to one of the previous claims, **characterized in that** pulling elastic means (10) are fixed between the horizontal shaft (6) and the fixed supports (7).
5. Support according to the previous claim, **characterized in that** said pulling elastic means (10) comprise springs fixed between the horizontal shaft (6) and pins (11) protruding inside the fixed supports (7).

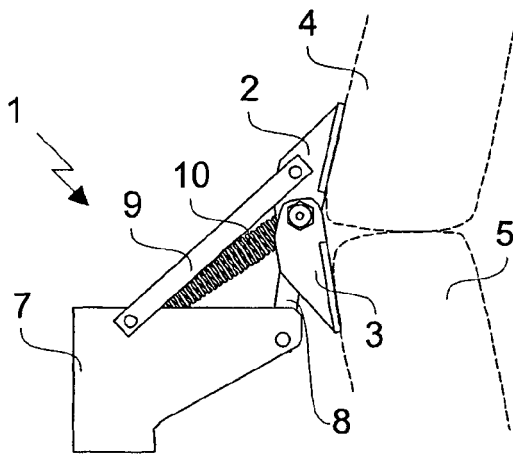


Fig. 1

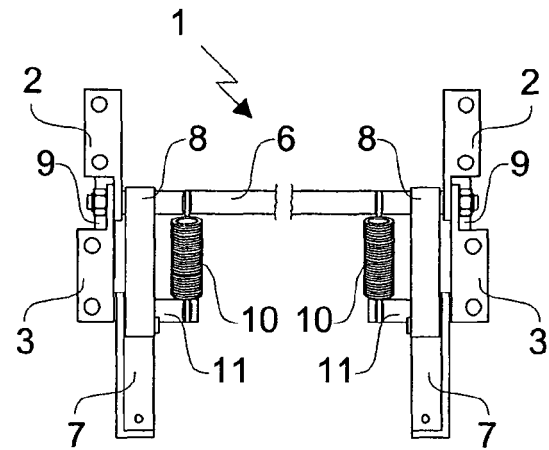


Fig. 2

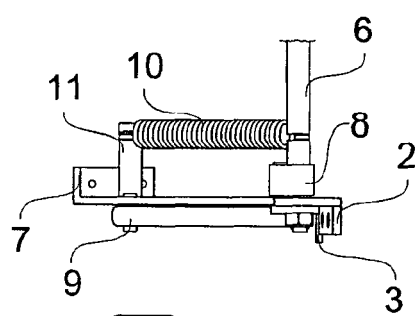


Fig. 3

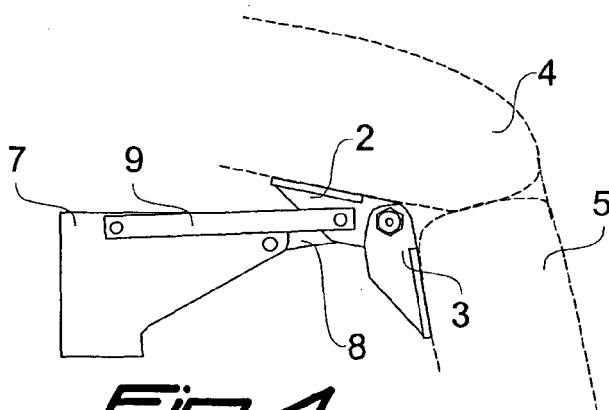


Fig. 4

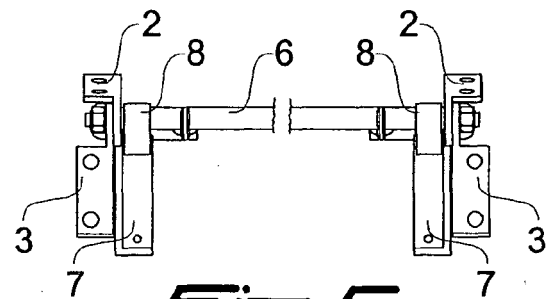


Fig. 5

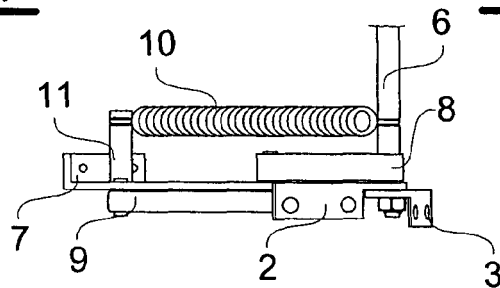


Fig. 6



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EUROPEAN SEARCH REPORT

Application Number
EP 05 42 5205

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 14 September 2005	Examiner Amghar, N
CATEGORY OF CITED DOCUMENTS 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 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 & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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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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