



**EUROPEAN PATENT APPLICATION**

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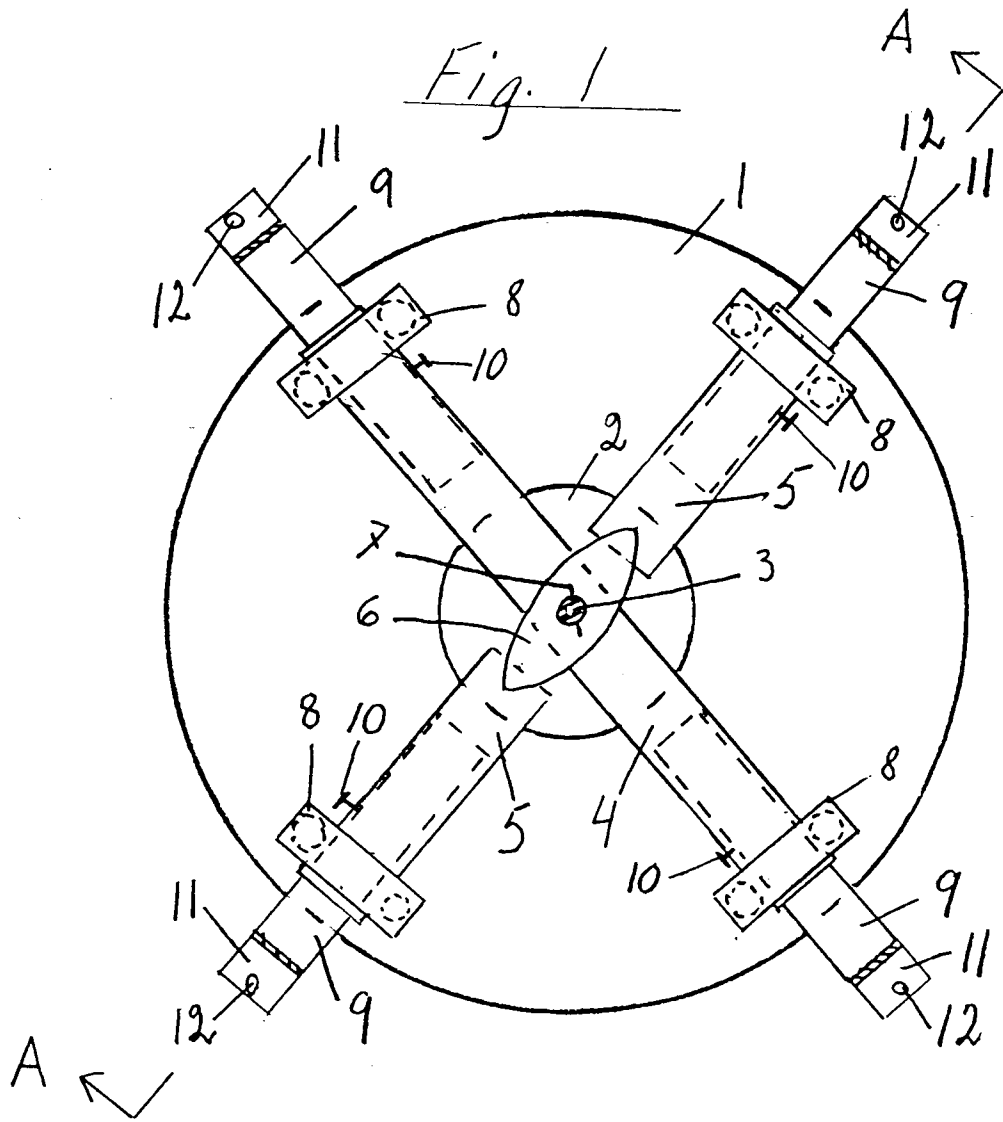
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**A device which is intended to be fitted to an armchair or like article.**

A device which is intended to be fitted to an armchair or like article having at least three legs for the purpose of converting the same to a swivel armchair. The device includes at least three horizontal arms (4, 5), a base (1), which is intended to rest on a floor surface and which includes or has fitted thereto a shaft (3) around which the arms are journaled for horizontal rotational movement, and further comprises roller means (8) fitted to the arms and resting against the base, and carrier means (11) fitted to the arms and functioning to support the legs of the armchair.

Fig. 1



### Technical Field

The present invention relates to a device which is intended to be fitted to an armchair or like article for the purpose of converting the armchair to a swivel armchair.

### Background Art

Those swivel armchairs which are presently available on the market are encumbered with certain drawbacks. For example, the general appearance of such armchairs does not match the appearance of conventional suites of furniture and the chairs also require a large amount of space for transportation and storage purposes. Furthermore, the swivel mechanism of a swivel armchair is an integral part of the chair and must be scrapped together with remaining chair parts when these become worn.

### The Object of the Invention and the Primary, Characteristic Features Thereof

The object of the present invention is to eliminate the aforesaid drawbacks and to provide a device which can be fitted to a conventional or standard armchair such as to convert the armchair to a swivel armchair without appreciably changing its original appearance.

The device requires only a small transportation and storage space and can be switched to a new armchair when the old armchair is worn out.

### Brief Description of the Drawings

Figure 1 is a schematic view of the inventive device, seen from above;

Figure 2 is a sectional view taken on the line A-A in Figure 1; and

Figure 3 is a schematic view of a modified part of the inventive device, seen from above.

### Description of a Preferred Embodiment

A steel plate 2 is adhesively bonded concentrically to a larger circular plate 1 made of hardened glass or plastic. A steel shaft 3 is welded to the centre of the steel plate so as to extend vertically therefrom. Mounted for rotation on the shaft 3 are four arms, which comprise two arm-pairs, each in the form of mutually crossing tubular members 4 and 5 and each of which can be rotated horizontally about its respective centre point, at which through-passing holes have been drilled for accommodating the shaft 3. The tubular members are held on the shaft by means of a cotter pin 7. The centre part of the tubular member 5 has been removed and replaced with two flat plates 6 welded to the top and bottom sides of the tubular mem-

ber, so that the two tubular members will lie in one and the same plane. The length of the piece of tubular member removed is slightly longer than the outer diameters of the tubular members 4 and 5, therewith enabling the angle between the tubular members to be varied from about 60° to about 120°, which is necessary in order for the inventive device to be fitted to different armchairs.

Fitted to the outer ends of the tubular members are four rollers, such as ball bearings 8, which are mounted such as to roll against the plate 1 when the cruciform tubular members are rotated around the shaft. In order to enable the device to be fitted to different armchairs, it is also necessary to be able to adjust the lengths of the tubular members, in addition to being able to adjust the angle between said members. This has been made possible with the aid of telescopic tubes 9 which can be displaced axially in the tubular members. The telescopic tubes have welded to the outer ends thereof carrier means in the form of angle irons 11 provided with holes 12 to enable the angle irons to be secured to the undersurface of the legs of the armchair, which are therewith fixated at a level of some centimeters above the level of the floor on which the plate 1 rests. Subsequent to having secured the angle irons, stop screws 10 are tightened so as to lock the telescopic tubes and to render the legs of the armchair stable.

Figure 3 illustrates an alternative embodiment, in which the plate 1 is replaced by an annular 13 having spokes 14 which accommodate the shaft 3 at their radially inner ends.

### **Claims**

1. A device which is intended to be fitted to an armchair or like article having four legs, for the purpose of converting the armchair or like article to a swivel armchair, **characterized** in that the device includes two horizontally extending and mutually crossing arms (4, 5), a base (1) which is intended to rest on a floor surface and which includes or has fitted thereto a shaft (3) on which the arms are journaled for horizontal rotary movement, roller means (9) mounted on said arms and in abutment with said base, and carrier means (11) mounted on said arms and supporting the legs of the armchair, wherein the angle between said arms is adjustable and the carrier means (11) are mounted on the extensible arms, which are preferably of telescopic construction, and are adjustable to different radial positions.
2. A device according to Claim 1, **characterized** in that the arms (4, 5) are located in a first common plane, in that the roller means (8) are located in a second common plane, and in that the carrier

means (11) are located in a third common plane at a short distance from the base (1).

3. A device according to Claim 1 or 2, **characterized** in that the carrier means (11) are located radially outside the roller means. 5
4. A device according to any one of the preceding Claims, **characterized** in that the carrier means (11) are provided with means (12) for securing the legs to the carrier means. 10
5. A device according to any one of the preceding Claims, **characterized** in that the roller means (8) have the form of ball bearings which surround the arms (4, 5). 15
6. A device according to any one of the preceding Claims, **characterized** in that the base has the form of a plate (1) made of hardened glass or plastic. 20
7. A device according to any one of Claims 1-5, **characterized** in that the base has the form of an annular (13) with spokes (14) which are provided with or accommodate said shaft (3) at the radially inner ends thereof. 25

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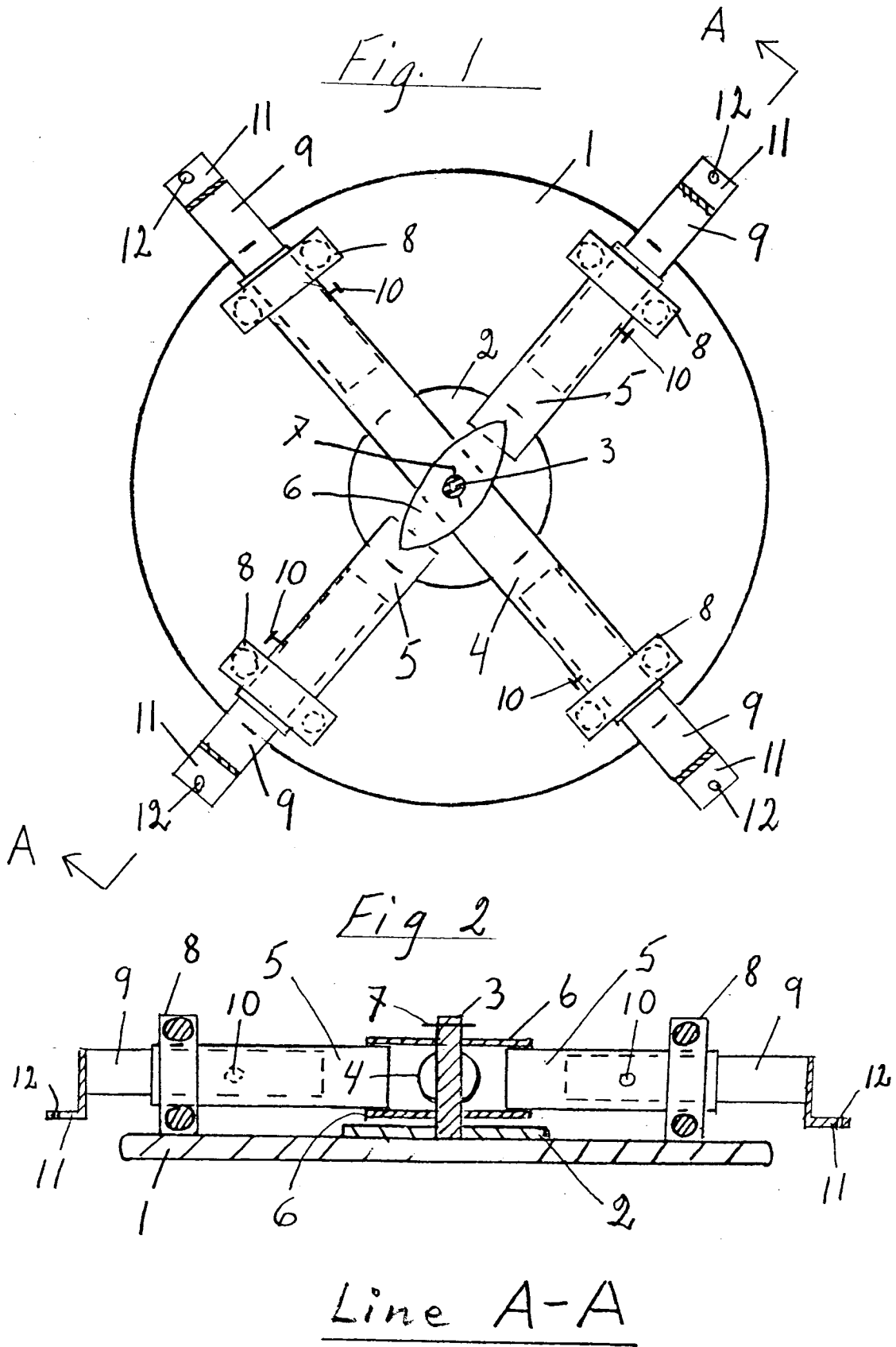
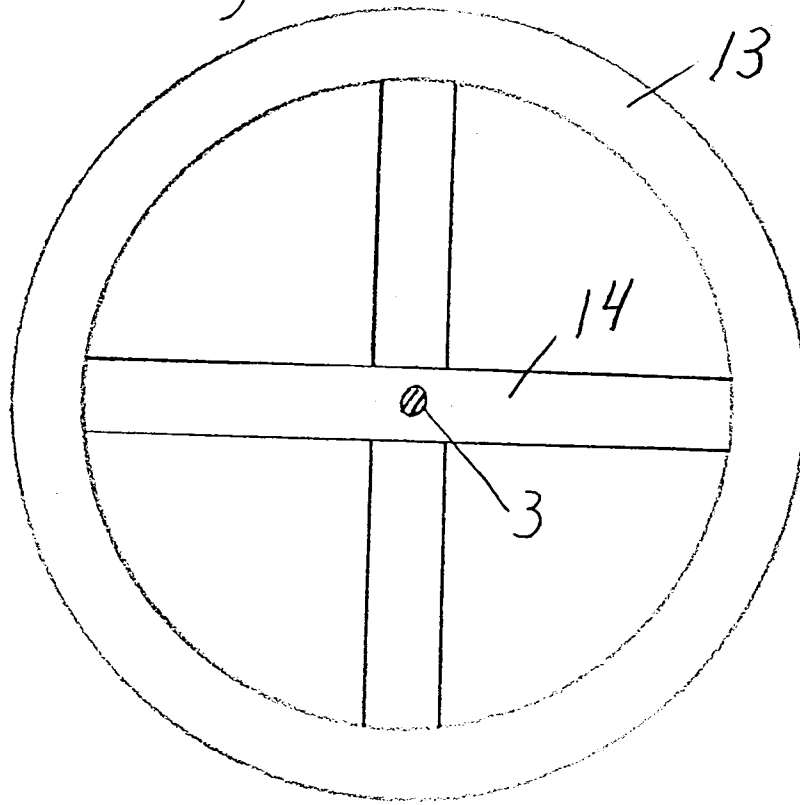


Fig 3





European Patent Office

EUROPEAN SEARCH REPORT

Application Number

EP 91 85 0190

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
A	US-A-1 747 543 (GREGORY) * page 1, line 42 - line 77 * * page 1, line 87 - page 2, line 9; figures * ---	1-4	A47C3/18
A	DE-C-820 475 (ISENBERG) * page 2, line 11 - line 60; figures * ---	1-5	
A	DE-U-8 806 423 (EGGERMANN) * page 4, paragraph 3 - page 5, paragraph 2; claim 8; figures * ---	1-3,5,6	
A	FR-A-1 590 704 (BLOCH) * the whole document * ---	1,2,4	
A	US-A-3 589 772 (LEAVER) * figure 1 * -----	7	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			A47C
Place of search THE HAGUE		Date of completion of the search 23 OCTOBER 1991	Examiner DE COENE P. J. S.
<p><b>CATEGORY OF CITED DOCUMENTS</b></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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