

# (11) **EP 1 952 721 A1**

(12)

## **EUROPEAN PATENT APPLICATION**

(43) Date of publication: **06.08.2008 Bulletin 2008/32** 

(51) Int Cl.: **A47C** 1/124 (2006.01)

(21) Application number: 07022514.9

(22) Date of filing: 20.11.2007

(84) Designated Contracting States:

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated Extension States:

AL BA HR MK RS

(30) Priority: 05.02.2007 IT MI20070199

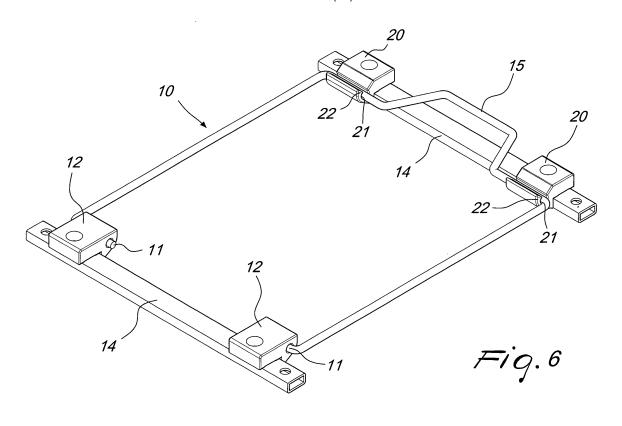
(71) Applicant: Pedrali S.p.A. 25036 Palazzo Sull'oglio (BS) (IT) (72) Inventor: Pedrali, Giuseppe 25036 Palazzolo Sull'oglio (Prov. of Brescia) (IT)

(74) Representative: Alagem Modiano, Lara S. et al Modiano & Associati Via Meravigli, 16 20123 Milano (IT)

## (54) Chair with means for constituting a row of chairs

(57) A chair (1) with means for constituting a row of chairs, comprising a supporting framework (2) which supports, at a region below a seat, a device for the detachable connection of chairs arranged side-by-side, the device for detachable connection comprising a frame (10) connected to supporting blocks (12) which can be fixed to the supporting framework (2) and can be mated detach-

ably and selectively to engagement blocks which can be fixed to the supporting framework (2) in order to assume an inactive position, in which the engagement blocks (20) are arranged on the same chair provided with the supporting blocks (12), and an active position, in which the engagement blocks (20) are provided on a chair which is laterally adjacent to the chair that supports the frame (10).



10

15

20

[0001] The present invention relates to a chair with means for constituting a row of chairs.

1

[0002] As is known, chairs provided with elements which allow to join two or more chairs so as to form a row are already commercially available.

[0003] In known solutions, the connection is provided typically by interlocking two fixed or retractable hooks, which are arranged on the sides of the chair and in many cases form a lateral protrusion of the chair even when the chair is used individually.

[0004] Other known solutions use detachable plates which are structurally very complicated and accordingly affect significantly the cost of the finished product.

[0005] The aim of the invention is to solve the problems described above by providing a chair with means for constituting a row of chairs which allows to have a connecting device constituted in practice by a single element which can be easily actuated manually.

[0006] Within this aim, an object of the invention is to provide a chair in which the connection device, in the inactive condition, does not cause any kind of hindrance and in practice is not visible.

[0007] Another object of the present invention is to provide a chair which thanks to its particular constructive characteristics is capable of giving the greatest assurances of reliability and safety in use.

[0008] Still another object of the present invention is to provide a chair with means for constituting a row of chairs which can be obtained easily starting from commonly commercially available elements and materials and is also competitive from a merely economical stand-

[0009] This aim and these and other objects, which will become better apparent hereinafter, are achieved by a chair with means for constituting a row of chairs, according to the invention, comprising a supporting framework which supports, at a region below the seat, a device for the detachable connection of chairs arranged side-byside, characterized in that said device for detachable connection comprises a frame connected to supporting blocks which can be fixed to said supporting framework and can be mated detachably and selectively to engagement blocks which can be fixed to said framework in order to assume an inactive position, in which said engagement blocks are arranged on the same chair provided with said supporting blocks, and an active position, in which said engagement blocks are provided on a chair which is laterally adjacent to the chair that supports said frame.

[0010] Further characteristics and advantages of the present invention will become better apparent from the description of a preferred but not exclusive embodiment of a chair with means for constituting a row of chairs, illustrated by way of non-limiting example in the accompanying drawings, wherein:

Figure 1 is a schematic perspective view of a plurality

of chairs arranged side-by-side and joined so as to

Figure 2 is a front elevation view of a row of chairs; Figure 3 is a side view of a chair;

Figure 4 is a bottom plan view of a chair;

Figure 5 is a bottom view of a plurality of chairs arranged side-by-side so as to constitute a row;

Figure 6 is a schematic perspective view, taken from the lower part, of the device for detachably connecting chairs arranged side-by-side;

Figure 7 is a sectional view, taken along the line VII-VII of Figure 3:

Figure 8 is an enlarged-scale sectional view of the detail of the supporting blocks;

Figure 9 is an enlarged-scale sectional view of the detail of the engagement blocks.

[0011] With reference to the figures, the chair with means for constituting a row of chairs, according to the invention, generally designated by the reference numeral 1, comprises a supporting framework, designated by the reference numeral 2, which can be of any type and can have any shape so as to provide connection to a seat 3 which also can assume any configuration or structure.

[0012] A device for the detachable connection of chairs arranged side-by-side is provided below the region affected by the seat 3 and has the peculiarity that it comprises a frame 10, which is preferably made of metal rod and is substantially U-shaped, the ends of its free arms 11 being bent so as to enter supporting blocks 12, preferably made of plastics, which are rigidly connected to the framework 2.

[0013] It is optionally possible to provide a fixing bar 14 for connection to the framework or it is also possible to connect the blocks 12 directly to the seat or to the framework.

[0014] The connection between the frame 10 and the supporting elements allows such frame to rotate about an axis which is substantially parallel to the plane defined by the seat.

[0015] The frame 10, in the central portion which lies opposite the pivoting side, advantageously defines a bend 15, which provides in practice a grip element for actuating the frame.

[0016] There are also engagement blocks 20, which are also advantageously made of plastics and can be fixed to the framework 2 directly or by means of the bar 14. [0017] The blocks 20 define at least one insertion seat 21, which in practice is delimited by a hook-shaped portion 22 on the free end, which allows to provide the snap insertion of the frame 10 at the side that lies opposite the side for pivoting to the blocks 12, in a region which is laterally adjacent to the bend 15.

[0018] The arrangement provided above allows to mate the frame 10, in inactive conditions, on the engagement blocks 20 provided on the same chair which is provided with the supporting blocks, so that the frame 10 is positioned below the chair and does not protrude in any way laterally and substantially is not even visible.

[0019] In order to obtain the row of chairs by arranging side-by-side a plurality of chairs, it is sufficient to free the frame 10 from the engagement blocks provided on the chair and, by turning it by using the axis of rotation, which in practice is defined by the folded portions 11, to interlock the side of the frame that lies opposite the side for pivoting within engagement blocks 20 provided in a laterally adjacent chair, thus achieving accordingly the engagement of the chair and its correct arrangement in a laterally adjacent position, with the possibility to provide a row of chairs.

**[0020]** With this arrangement it is therefore possible to arrange side-by-side a plurality of chairs, by using interconnection means which are particularly simple from a structural standpoint, since they can be obtained by means of plastic blocks which are particularly easy to manufacture and by means of a simple bent iron rod.

**[0021]** It should be added to the above that it is preferably convenient to provide the last chair of the row without the frame, so as to avoid the frame hanging loose.

**[0022]** From what has been described above it is therefore evident that the invention achieves the proposed aim and objects, and in particular the fact is stressed that a chair is provided in which the device for the detachable connection of a plurality of chairs is obtained by way of means which are particularly simple from a structural standpoint and are particularly easy to actuate.

**[0023]** The invention thus conceived is susceptible of numerous modifications and variations, all of which are within the scope of the appended claims.

**[0024]** All the details may further be replaced with other technically equivalent elements.

**[0025]** In practice, the materials used, as well as the contingent shapes and dimensions, may be any according to requirements.

**[0026]** The disclosures in Italian Patent Application No. MI2007A000199 from which this application claims priority are incorporated herein by reference.

[0027] Where technical features mentioned in any claim are followed by reference signs, those reference signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly, such reference signs do not have any limiting effect on the interpretation of each element identified by way of example by such reference signs.

## Claims

1. A chair (1) with means for constituting a row of chairs, comprising a supporting framework (2) which supports, at a region below a seat (3), a device for the detachable connection of chairs arranged side-byside, characterized in that said device for detachable connection comprises a frame (10) connected to supporting blocks (12) which can be fixed to said supporting framework (2) and can be mated detach-

ably and selectively to engagement blocks (20) which can be fixed to said framework (2) in order to assume an inactive position, in which said engagement blocks (20) are arranged on the same chair provided with said supporting blocks (12), and an active position, in which said engagement blocks (20) are arranged on a chair which is laterally adjacent to the one that supports said frame (10).

- 2. The chair according to claim 1, characterized in that said frame (10) is constituted by a rod which is substantially U-shaped, with the ends of its free arms (11) bent so as to enter said supporting blocks (12).
- 15 3. The chair according to the preceding claims, characterized in that it comprises fixing bars (14) which are connected to said framework (2) in order to fix said supporting blocks (12).
- 20 4. The chair according to one or more of the preceding claims, characterized in that said frame (10), in the central portion which lies opposite the pivoting side, defines a bend (15) which is adapted to provide a grip element for the actuation of the frame (10).
  - 5. The chair according to one or more of the preceding claims, characterized in that said engagement blocks (20) define at least one insertion seat (21), which is delimited by a hook-shaped portion (22) on the free end of said engagement blocks (20).
  - 6. The chair according to one or more of the preceding claims, characterized in that said frame (10) can rotate about an axis which lies on a plane which is substantially parallel to the plane of said seat (21).
  - 7. A device which can be applied to a chair in order to constitute a row of chairs, characterized in that it comprises a frame (10) connected to supporting blocks (12) which can be fixed to a supporting framework (2) of a chair and can be mated selectively and detachably to engagement blocks (20) which can be fixed to said framework (2) in order to assume an inactive position, in which said engagement blocks (20) are arranged on the same chair that is provided with said supporting blocks (12), and an active position, in which said engagement blocks (20) are arranged on a chair which is laterally adjacent to the chair that supports said frame (10).

50

25

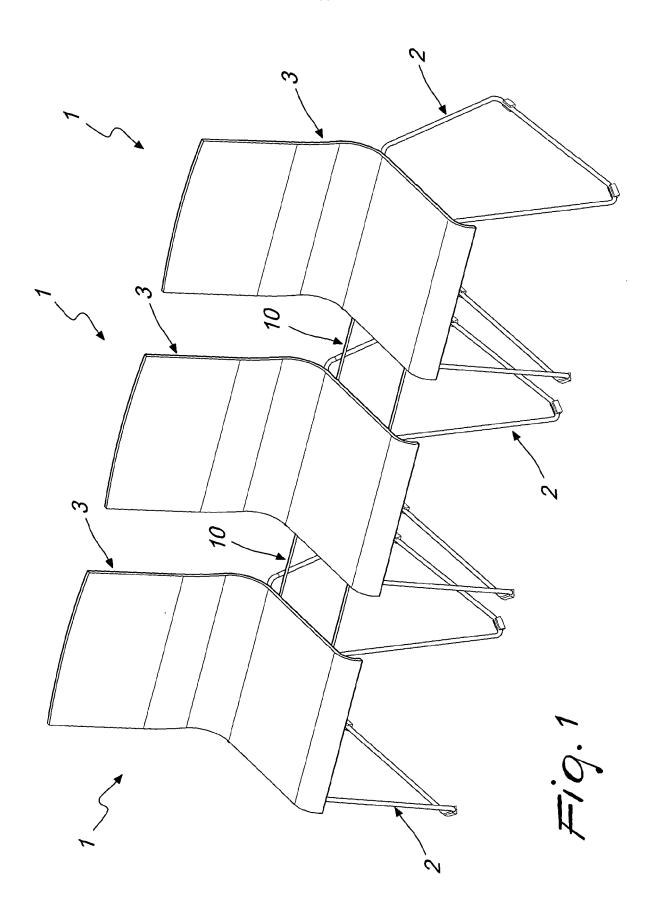
30

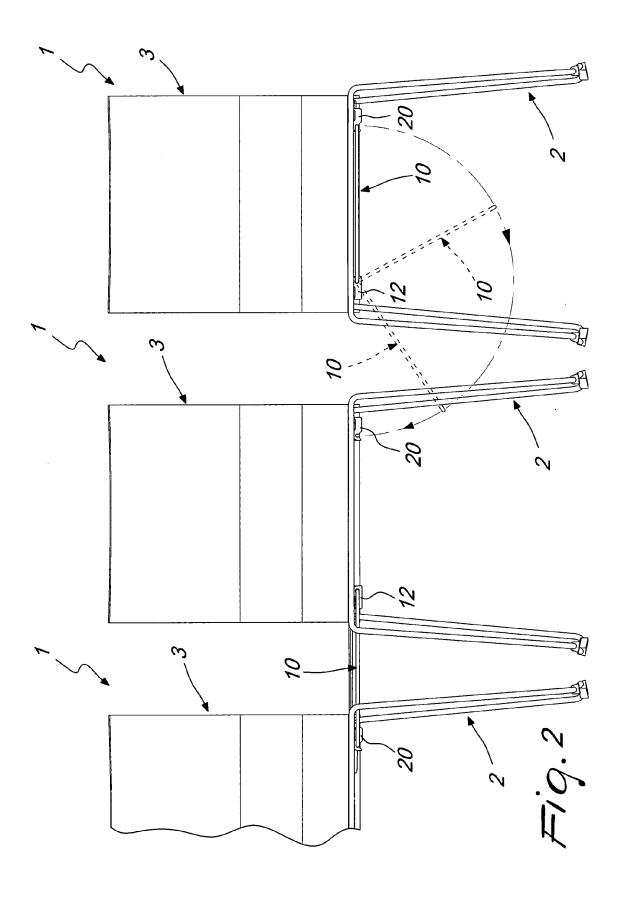
35

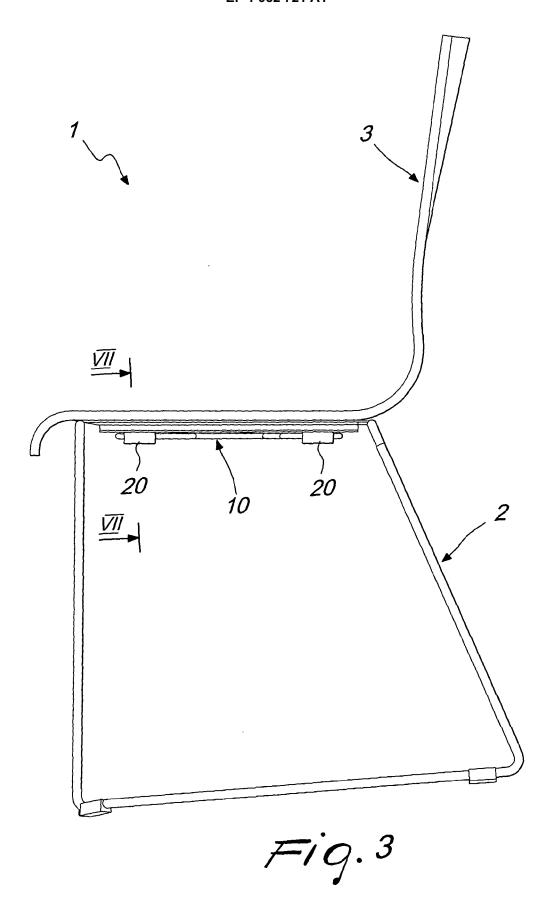
40

45

3







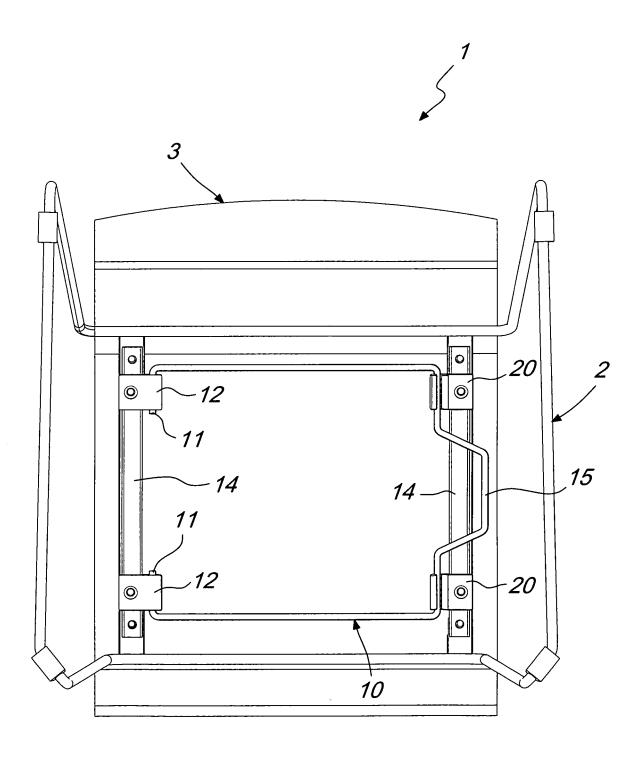
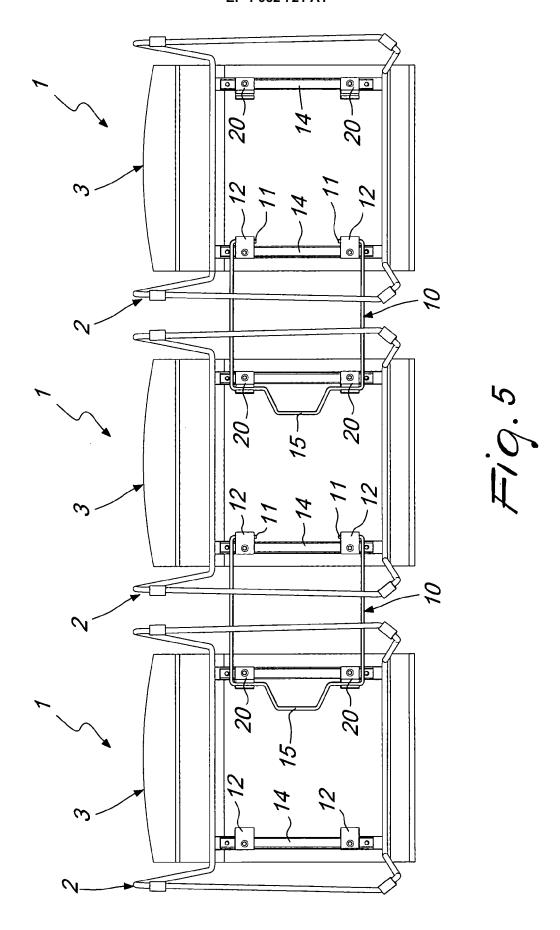
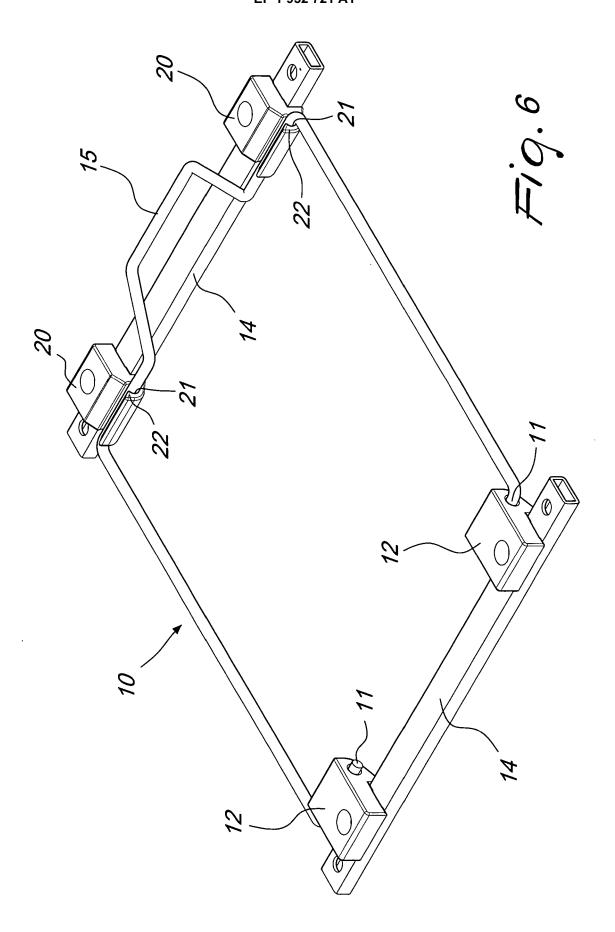
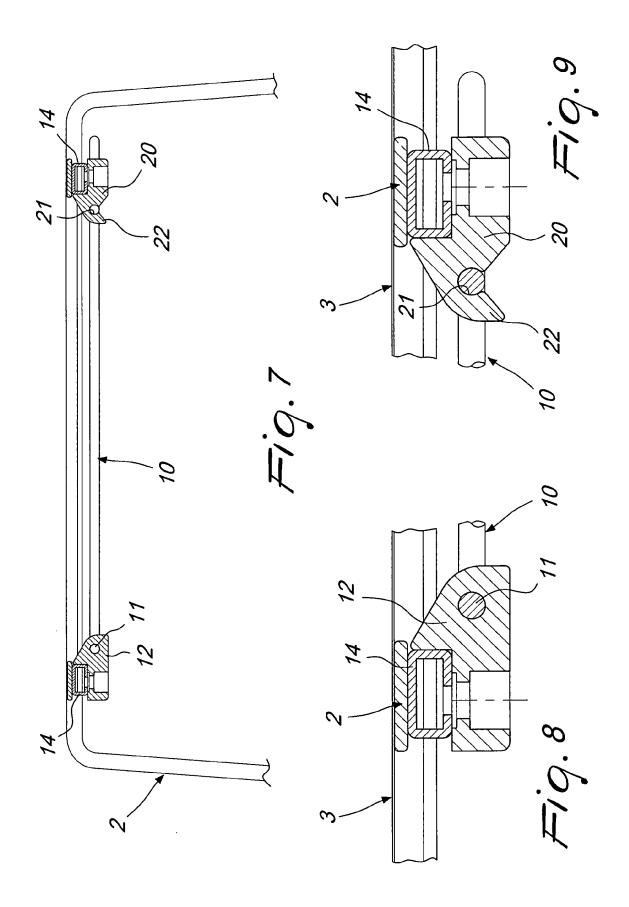


Fig. 4









## **EUROPEAN SEARCH REPORT**

Application Number EP 07 02 2514

Category	Citation of document with inc of relevant passa		Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Х	GB 2 188 232 A (LER 30 September 1987 ( * page 1, line 73 - *	1-4,6,7	INV. A47C1/124	
Х	9 May 1968 (1968-05		1-4,6,7	
A	DE 16 54 234 A1 (FLC 11 March 1971 (1971 * page 3, line 13 - figures 1-6 *	-03-11)	1-7	
A	US 5 957 530 A (GUTO 28 September 1999 ( * column 2, line 61 figures 1-7 *	 GSELL DAVID [US]) 1999-09-28) - column 5, line 37;	1,3,4,6, 7	
A	GB 2 422 173 A (SENATOR INTERNAT LTD [GB]) 9 July 2006 (2006-07-19) 9 page 1, line 25 - page 4, line 12; 1 gures 1-5 *		1,3,4,6, 7	TECHNICAL FIELDS SEARCHED (IPC)
А	US 2 751 969 A (JAN 26 June 1956 (1956-0 * column 1, line 47 figures 1,2,5-7 *		1,3,4,6,	
	The present search report has b	een drawn up for all claims  Date of completion of the search		Examiner
	The Hague	23 May 2008	Kus, Slawomir	
X : parti Y : parti docu A : tech O : non	ATEGORY OF CITED DOCUMENTS cularly relevant if taken alone cularly relevant if combined with anoth ment of the same category nological background written disclosure mediate document	L : document cited fo	ument, but publise I the application I ther reasons	shed on, or

11

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

EP 07 02 2514

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 The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

23-05-2008

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
GB 2188232	A	30-09-1987	DE DK	3709620 A1 137286 A	01-10-198 26-09-198
DE 1985083	U	09-05-1968	NONE		
DE 1654234	A1	11-03-1971	NONE		
US 5957530	Α	28-09-1999	CA	2247863 A1	24-03-199
GB 2422173	Α	19-07-2006	NONE		
US 2751969	Α	26-06-1956	NONE		

FORM P0459

 $_{
m ii}^{
m O}$  For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

## EP 1 952 721 A1

### REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

## Patent documents cited in the description

• IT MI20070199 A [0026]