

(11) **EP 4 085 888 A3**

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3: 22.02.2023 Bulletin 2023/08

(43) Date of publication A2: **09.11.2022 Bulletin 2022/45**

(21) Application number: 22171726.7

(22) Date of filing: 05.05.2022

(51) International Patent Classification (IPC): A61G 5/10 (2006.01) A61G 5/12 (2006.01)

(52) Cooperative Patent Classification (CPC): A61G 5/122; A61G 5/1045; A61G 5/1048; A61G 5/1062; A61G 5/1064; A61G 5/0816

(84) Designated Contracting States:

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated Extension States:

BA ME

Designated Validation States:

KH MA MD TN

(30) Priority: 05.05.2021 NL 2028153

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(54) BACKREST AND CHAIR

(57) Backrest for supporting the back of a seated person comprising a rigid backrest frame and a back support structure comprising substantially non-elastic, flexible sheet material. The non-elastic, flexible sheet material comprising a central region and at least four lateral segments, wherein the backrest support surface in its loaded condition has a form-stable, a three-dimensionally curved shape of which a cross-sectional view in the sagittal plane shows a backrest support surface curvature. Preferably, this backrest support surface curvature corresponds with the vertebral curvature at least in a region which corresponding with the lumbar region and a transition region which is formed by a lower part of the thoracic region and an upper part of the lumbar region.

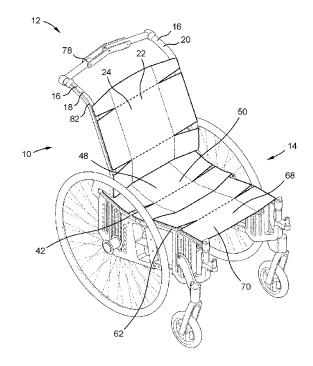


Fig. 1



EUROPEAN SEARCH REPORT

Application Number

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	DOCUMENTS CONSIDERED	IO DE NELEVANI			
Category	Citation of document with indication, of relevant passages	where appropriate,	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)	
X A	US 6 186 594 B1 (VALIQUE: AL) 13 February 2001 (200 * column 4, line 46 - colfigures 2-91-42 *	01-02-13)	2-13) 15,18-21		
X A	US 6 767 066 B1 (TORNERO 27 July 2004 (2004-07-27) * paragraphs [0096] - [0320-30 *)	1-9,12, 13,18,19 10,11, 14-17, 20-22		
X A	US 2006/208552 A1 (NISHIV 21 September 2006 (2006-0 * paragraphs [0133] - [0133] *	09-21)	1-4,12, 18,19 5-11, 13-17, 20-22		
x	JP 4 721254 B2 (KIHARA SE SANGYO KK) 13 July 2011 * paragraphs [0096] - [03 20-30 *	(2011-07-13)	1,3,4, 11,12, 18-21	TECHNICAL FIELDS SEARCHED (IPC)	
A	US 5 020 816 A (MULHOLLA) [US]) 4 June 1991 (1991-0) * column 2, line 9 - column 2, line 9 - column 2	06-04)	1,2,13		
A US 5 503 459 A (WHITE CAR 2 April 1996 (1996-04-02) * the whole document *			1,5-8		
X A	EP 1 295 582 B1 (LUDGERUS 20 June 2012 (2012-06-20) * paragraph [0037]; figur)	1-4,12, 18-21 22		
	The present search report has been draw	vn up for all claims			
	Place of search	Date of completion of the search		Examiner	
X : part Y : part doci A : tech O : non	The Hague ATEGORY OF CITED DOCUMENTS icularly relevant if taken alone icularly relevant if combined with another ument of the same category inological backgroundwritten disclosure rmediate document	T: theory or principle E: earlier patent doc after the filing date D: document cited in L: document of the sa document	underlying the ir ument, but publise the application r other reasons	hed on, or	



EUROPEAN SEARCH REPORT

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		DOCUMENTS CONSID	ERED TO BE RE	LEVANT				
	Category	Citation of document with ir of relevant pass			Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)		
10	x	KR 102 165 278 B1 (13 October 2020 (20 * paragraphs [0033]	KIM DONG MIN [: 20-10-13)		0-22			
15								
20								
25								
30					_	TECHNICAL FIELDS SEARCHED (IPC)		
35								
40								
45								
3		The present search report has I	peen drawn up for all cla			Examiner		
50 (1001)		The Hague		ary 2023	Pet	zold, Jan		
20 (100409) 2880 8382 (004000) 045	X : par Y : par doc A : tec	CATEGORY OF CITED DOCUMENTS ticularly relevant if taken alone ticularly relevant if combined with another the same category thrological background	T : E : ner D : L :	theory or principle un earlier patent docum- after the filing date document cited in the document cited for ot	derlying the in ent, but publis application her reasons	nvention hed on, or		
55 99 99 99 99 99 99 99 99 99 99 99 99 9		n-written disclosure ermediate document	&:	 a: member of the same patent family, corresponding document 				



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	CLAIMS INCURRING FEES				
	The present European patent application comprised at the time of filing claims for which payment was due.				
10	Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):				
15	No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.				
20	LACK OF UNITY OF INVENTION				
	The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:				
25					
	see sheet B				
30					
	All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.				
35	As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.				
40	Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:				
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	None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:				
50					
55	The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).				



LACK OF UNITY OF INVENTION SHEET B

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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely: 1. claims: 1-19(completely); 20-22(partially) 10 Backrest with three-dimensionally curved shape 2. claims: 20-22(partially) 15 Chair with three-dimensionally curved seat frames 20 25 30 35 40 45 50 55

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

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

13-01-2023

Patent document Publication Patent family Publication Cided in search report Publication Patent family Publication Cided in search report									15 01 202
15 US 6767066 B1 27-07-2004 NONE US 2006208552 A1 21-09-2006 CA 2501419 A1 18-09-2006 US 2006208552 A1 21-09-2006 US 2006208552 A1 21-09-2006 US 2006208552 A1 21-09-2006 US 5020816 A 04-06-1991 NONE US 5503459 A 02-04-1996 CA 2104271 A1 18-02-1995 EP 1295582 B1 20-06-2012 EP 1295582 A2 26-03-2003 KR 102165278 B1 13-10-2020 NONE 35 40 45	10	C							
15		Us							
US 2006208552 A1 21-09-2006 CA 2501419 A1 18-09-2006 US 2006208552 A1 21-09-2006 US 2006208552 A1 21-09-2006 JP 4721254 B2 13-07-2011 JP 4721254 B2 13-07-2011 US 5020816 A 04-06-1991 NONE US 5503459 A 02-04-1996 CA 2104271 A1 18-02-1995 EP 1295582 B1 20-06-2012 EP 1295582 A2 26-03-2003 KR 102165278 B1 13-10-2020 NONE 30 40 45	15		s 6767066	в1	27-07-2004	NONE			
20 JP 4721254 B2 13-07-2011 JP 4721254 B2 13-07-2011 JP 2006075257 A 23-03-2006 US 5020816 A 04-06-1991 NONE US 5503459 A 02-04-1996 CA 2104271 A1 18-02-1995 US 5503459 A 02-04-1996 CA 2104271 A1 18-02-1995 US 5503459 A 02-04-1996 CA 2104271 A1 18-02-1995 A1 A1 A1 A1 A1 A1 A1 A						CA	2501419	A1	18-09-2006
US 5020816 A 04-06-1991 NONE US 5503459 A 02-04-1996 CA 2104271 A1 18-02-1995 US 5503459 A 02-04-1996 EP 1295582 B1 20-06-2012 EP 1295582 A2 26-03-2003 NL 1019017 C2 25-03-2003 KR 102165278 B1 13-10-2020 NONE 40 45	20					JP	4721254	в2	13-07-2011
25 US 5503459 A 02-04-1996 CA 2104271 A1 18-02-1995 O2-04-1996 US 5503459 A 02-04-1996 O2-04-1996 O2-04-19	20	 US							
EP 1295582 B1 20-06-2012 EP 1295582 A2 26-03-2003 NL 1019017 C2 25-03-2003 KR 102165278 B1 13-10-2020 NONE 35 40 45		Us				CA	2104271	A1	18-02-1995
30 KR 102165278 B1 13-10-2020 NONE 40 45	25					 EP	1295582	A2	26-03-2003
 35 40 45 50 		 KI							
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PORM P0459	50								
55 OO NAM P04		g							
	55	-ORM P04							

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