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(54) **KINESTHETIC DEVICE THAT SIMULATES FLIGHT**

(57) A kinesthetic device that simulates flight includes a base unit and a swing unit. The base unit includes a base seat; whereas, the swing unit includes a swing seat, two swing support structures pivoted between the base seat and the swing seat, and a swing actuator used to control the swing positions of the two swing support structures. The two swing support structures are equal in length and parallel to each other. A fixed baseline is formed between two junction points be-

tween the two swing support structures and the base seat, a swing baseline is formed between two junction points between the two swing support structures and the swing seat, and the fixed baseline and the swing baseline are equal in length. The two swing support structures, the fixed baseline and the swing baseline form a parallelogram, allowing the swing support structures to swing stably the base seat.

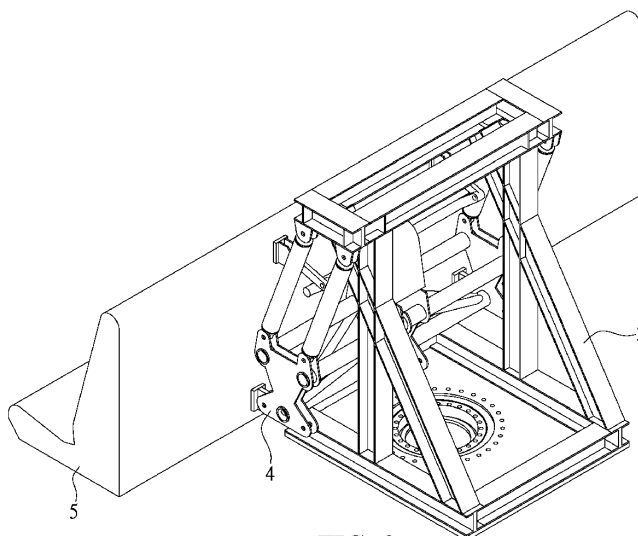


FIG. 2



## EUROPEAN SEARCH REPORT

Application Number  
EP 18 18 2421

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 3 281 962 A (PANCOE EDWARD G) 1 November 1966 (1966-11-01)	1,2	INV. A63G31/02 A63G31/16
A	* column 4, line 25 - column 5, line 43; figures 1, 3, 7 *	3-6	
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X	JP H10 207338 A (HITACHI LTD) 7 August 1998 (1998-08-07)	1	
A	* the whole document *	2-6	
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X	US 9 289 693 B1 (MORRIS DONALD [US] ET AL) 22 March 2016 (2016-03-22)	7	TECHNICAL FIELDS SEARCHED (IPC)  A63G
A	* column 3, line 29 - column 4, line 42; figures 1, 7 *	8-10	
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A	US 3 829 988 A (BURNY G) 20 August 1974 (1974-08-20)	1-6	
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A	EP 2 510 989 A1 (BROGENT TECHNOLOGIES INC [TW]) 17 October 2012 (2012-10-17)	7-10	
A	* the whole document *	7-10	
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A	CN 103 623 580 A (WUHU HUAQIANG CULTURE & TECHNOLOGY IND CO LTD) 12 March 2014 (2014-03-12)	7-10	
A	* the whole document *	7-10	
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The present search report has been drawn up for all claims			
Place of search <b>Munich</b>		Date of completion of the search <b>11 March 2019</b>	Examiner <b>Turmo, Robert</b>
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			

EPO FORM 1503 03.82 (P04C01)



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**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing claims for which payment was due.

☐ 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):

☐ 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.

**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:

see sheet B

☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ 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:

☐ 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:

☐ 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**

Application Number

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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: 1-6

Directed to a kinesthetic device that simulates flight comprising two swing support structures equal in length and parallel to each other, a fixed baseline is formed between two junction points between the two swing support structures and the base seat, a swing baseline is formed between two junction points between the two swing support structures and the swing seat, the fixed baseline and the swing baseline are equal in length, and the swing support structures, the fixed baseline and the swing baseline form a parallelogram. Problem: how to provide a kinesthetic device that simulates flight with an alternative swing unit structure .

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## 2. claims: 7-10

Directed to a kinesthetic device that simulates flight comprising a flip unit which includes a riding seat pivoted at the swing support structure, a flip support structure disposed between the swing support structure and the riding seat, and a flip actuator used to control the flipping angle of the riding seat. Problem: how to provide a kinesthetic device that simulates flight with an alternative flip unit structure .

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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.

11-03-2019

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