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(54) Hinge apparatus

(57) basal end portion of a force transmitter 81 is rotatably disposed in a second support shaft 74 rotatably connecting an internal link 72 to a body 3. A distal end portion of the force transmitter 81 is projected out of a guide hole 3g formed in a top plate 3b of the body 3. A pressing portion 81b is disposed in the projected distal end portion of the force transmitter 81. A receiver 83 is

disposed in an end portion that is spaced from an instantaneous rotation center of a mounting member 4 when the mounting member 4 is positioned near a closed position. The pressing portion 81b is pressed against the receiver 83 by the torsion coil spring 82, thereby causing the mounting member 4 to be rotated toward the closed position.

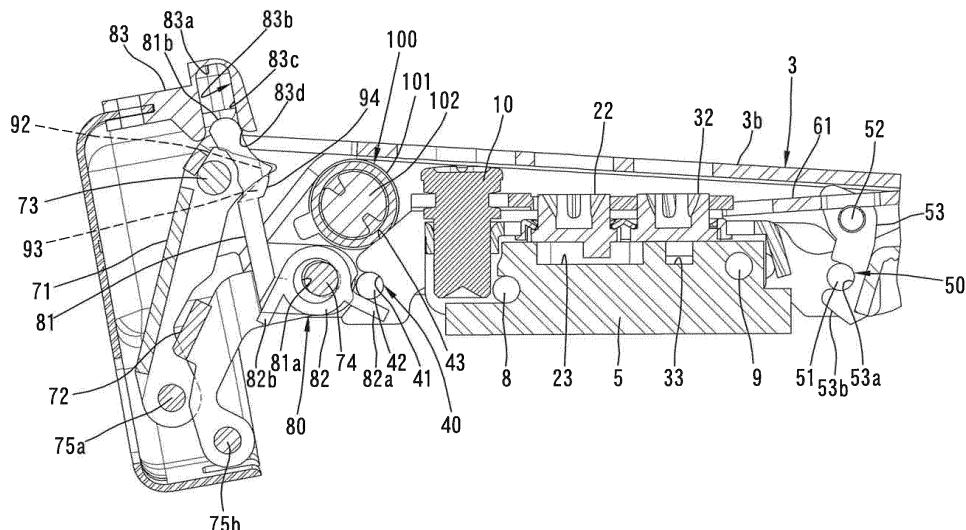


FIG. 11



EUROPEAN SEARCH REPORT

Application Number

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (IPC)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
X	DE 20 34 013 A1 (KUNSTSTOFF GMBH [DE]) 9 December 1971 (1971-12-09) * page 2, line 13 - line 30 * * figures 1-2 * -----	1-7	INV. E05D3/14 E05D11/10
A	JP S60 112973 A (YOGOU SUMIKIN SANGYO KK) 19 June 1985 (1985-06-19) * figures 1-11 * -----	8,9	
A,D	JP S60 112973 A (YOGOU SUMIKIN SANGYO KK) 19 June 1985 (1985-06-19) * figures 1-11 * -----	1	
A	GB 1 267 439 A (HETTICH F KG [DE]) 22 March 1972 (1972-03-22) * page 1, line 61 - page 2, line 86 * * figures 1-3 * -----	1	
			TECHNICAL FIELDS SEARCHED (IPC)
			E05D E05F
The present search report has been drawn up for all claims			
Place of search	Date of completion of the search	Examiner	
The Hague	1 October 2014	Prieto, Daniel	
CATEGORY OF CITED DOCUMENTS		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	
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			
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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 11 19 3819

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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.

01-10-2014

10

	Patent document cited in search report		Publication date	Patent family member(s)	Publication date
	DE 2034013	A1	09-12-1971	NONE	
15	JP S60112973	A	19-06-1985	NONE	
	GB 1267439	A	22-03-1972	AT 299740 B BE 743103 A DE 6811861 U GB 1267439 A NL 6918917 A	26-06-1972 14-05-1970 24-01-1969 22-03-1972 22-06-1970
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35					
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