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(54) Pulley with automatic emergency brake

(57) Pulley with automatic emergency brake consisting of a disk (1) guiding the rope (3) having a pull (7) and a load leg (8), rotary supported by a suitable yoke (5), this pulley being provided with a double walled rocker arm (9), the outer walls of which are mounted on the yoke (5) by means of transverse pivot pins (10) off-centered with respect to the shaft axis (4) of the above disk (1) in the direction of the pull leg (7) of the rope.

The above rocker arm (9) has the shape of a right-angled triangle, its hypotenuse being slantwise located at the top, its smaller acute angle (α) located at the bottom towards the load leg (8) of the rope where an adjustable balance weight (12) is placed, whereas the greater acute angle (β) is located at the upper end of the pull leg (7) of the rope where a transverse pin (13) is provided with a grip wedge (14) to release or block the rope (3) in the race (2) of the pulley disk (1) and finally the right angle (γ) at the bottom towards the pull leg (7) of the rope featuring a snatch block (11) on which the pull rope (7) slides causing the release of the rope (3) when pulled, whereas the counterweight (12) will block the rope (3) when the pull leg (7) of the rope is not in traction.

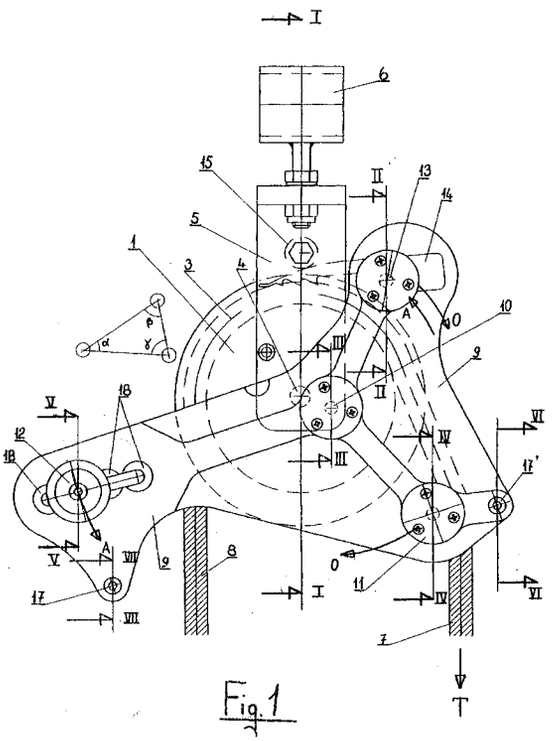

Fig. 1

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EUROPEAN SEARCH REPORT

Application Number
EP 99 11 2036

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.7)
A	WO 97 17107 A (ROLLGLISS AG ;WULLIMANN FRANK (CH)) 15 May 1997 (1997-05-15) * page 5, line 4 - page 14, line 17; figures *	1-5	A62B1/06
A	DE 25 28 410 A (MATSUMOTO KIKO CO) 13 January 1977 (1977-01-13) * page 6, line 28 - page 14, line 32; figures *	1-5	
A	WO 94 22533 A (PICKERING GREGORY R) 13 October 1994 (1994-10-13) * page 6, line 22 - page 8, line 19; figures *	1-5	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			A62B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	31 July 2001	Triantaphillou, P

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31-07-2001

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9717107 A	15-05-1997	AU 3921595 A	29-05-1997
		CA 2236033 A	15-05-1997
		DE 29519253 U	01-02-1996
		EP 0859647 A	26-08-1998
		US 5911410 A	15-06-1999
		DE 29519251 U	25-01-1996
DE 2528410 A	13-01-1977	NONE	
WO 9422533 A	13-10-1994	US 5348117 A	20-09-1994
		AU 6372394 A	24-10-1994

EPO FORM P0459

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