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(54) **A barrier**

(57) A barrier (1) has a base unit (2) which is secured to the ground and a top unit (3) which may be connected at any one of four different orientations. An electronic controller (6) is mounted in a door (5) of the base unit (2) so that it may be easily accessed. A drive mechanism (35) is mounted in a modular manner in the top unit (3). It is mounted by virtue of a beam drive shaft (21) which is mounted by bearings (22) at each end to opposed side walls (20) of the top unit (3). The beam is

connected to the drive shaft (21) in a symmetrical manner so that the barrier may be used for either the right side or the left side of a laneway. There is excellent support and balance in the drive mechanism because it is connected between support bearings of the beam drive shaft (21). A manual override is provided to release a clutch if an electrical fault arises. The beam has a shear plate (27) which yields to minimise damage to either the drive mechanism or a beam arm (30) in the event of an accidental impact against the beam.

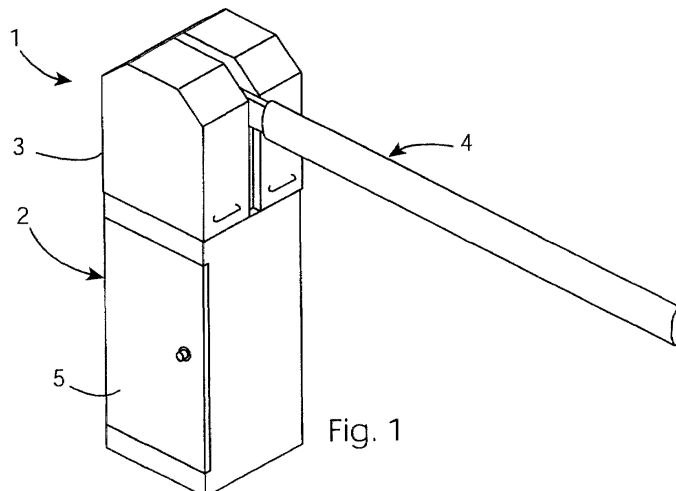


Fig. 1

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EUROPEAN SEARCH REPORT

Application Number  
EP 99 65 0119

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)
X	US 4 848 175 A (WEISS ADRIAN U) 18 July 1989 (1989-07-18)	1,6,9	E01F13/06
Y	* column 6, line 13 - line 56 * ---	7,10,11	
X	FR 2 714 683 A (ESCOTA) 7 July 1995 (1995-07-07)	1,2	
Y	* page 9, line 4 - line 10; figures * ---	7	
A	---	6	
X	US 2 826 840 A (BENJAMIN COOPER ET AL) 18 March 1958 (1958-03-18)	1-3	
	* column 2, line 24 - line 29; figures 1,4 * ---		
X	EP 0 438 364 A (MIGNOT JEAN MARC) 24 July 1991 (1991-07-24)	1,9	
A	* figures 1,3 * ---	2	
Y	US 3 877 174 A (MCDONALD ROBERT R) 15 April 1975 (1975-04-15)	10	
	* column 3, line 29 * ---		
Y	US 5 035 082 A (BUTLER COLIN) 30 July 1991 (1991-07-30)	11	
	* column 8, line 59 - line 63 * ---		
A	US 5 398 450 A (CACICEDO PAULINO A) 21 March 1995 (1995-03-21)	2,3	
	* the whole document * ---		
A	US 5 480 121 A (RICE GERALD ET AL) 2 January 1996 (1996-01-02)	4	
	* figure 1 * ---		
A	US 3 135 062 A (GUERCO JOHN J) 2 June 1964 (1964-06-02)	7	
	* column 2, line 32 - line 36 * * column 3, line 28 - line 32; figure 7 * -----		
The present search report has been drawn up for all claims			
Place of search <b>MUNICH</b>		Date of completion of the search <b>7 December 2001</b>	Examiner <b>Ellis, D</b>
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 P : intermediate document			

**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  
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07-12-2001

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4848175 A	18-07-1989	DE 3715936 A1	01-12-1988
		AT 65580 T	15-08-1991
		DE 3863834 D1	29-08-1991
		EP 0290957 A1	17-11-1988
FR 2714683 A	07-07-1995	FR 2714683 A1	07-07-1995
		WO 9518266 A1	06-07-1995
US 2826840 A	18-03-1958	NONE	
EP 0438364 A	24-07-1991	FR 2656884 A1	12-07-1991
		AT 109846 T	15-08-1994
		DE 69103287 D1	15-09-1994
		EP 0438364 A1	24-07-1991
US 3877174 A	15-04-1975	NONE	
US 5035082 A	30-07-1991	US 4916859 A	17-04-1990
		AU 4317489 A	23-03-1990
		WO 9002229 A1	08-03-1990
US 5398450 A	21-03-1995	NONE	
US 5480121 A	02-01-1996	NONE	
US 3135062 A	02-06-1964	NONE	

EPC FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82