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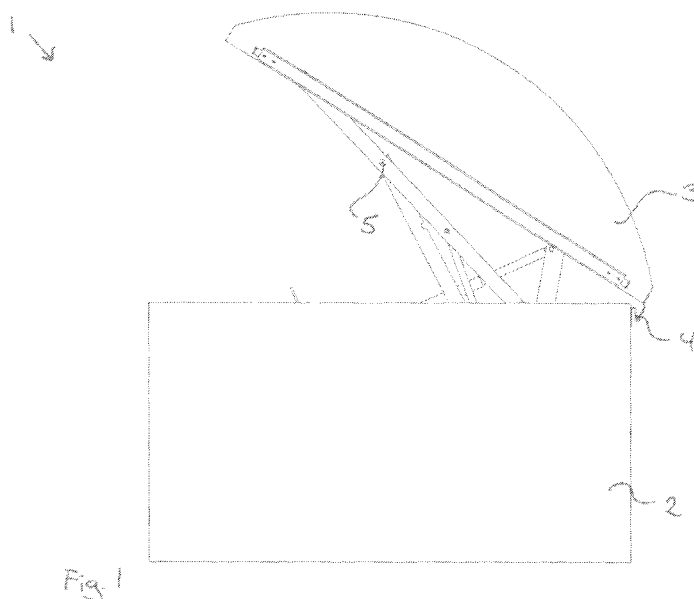
(54) **Opening mechanism to a smoke and heat ventilator**

(57) The present invention concerns a ventilation opening (1) of the type which is built into roof constructions and typically includes a frame part (2) and a lid part (3), where this lid part (3) in case of fire or smoke formation is opened and under normal conditions is used for comfort ventilation.

The ventilation opening is provided with mechanical means (5) that include at least one controlled linear actuator (9), where the direction of movement of the linear

actuator (9) is away from the front edge, where the actuator (9) is pivotably fastened to a crossbar (6) at one end, and is connected to a rod mechanism at the other end, where the rod mechanism via a movable bearing is connected to a displacing bearing/slide groove (22) which is in fixed connection with the lid part (3) of the ventilation opening.

By such a ventilation opening (1) there is achieved a solution wherein an actuator with relatively short stroke can be used for opening even large ventilation openings.



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EUROPEAN SEARCH REPORT

Application Number
EP 08 15 7753

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	GB 2 125 884 A (COX LTD WILLIAM) 14 March 1984 (1984-03-14)	1-5	INV. E04D13/03 E04D13/035
Y	* page 1, line 3 - line 24 * * page 1, line 95 - page 2, line 70; claims 1-15; figures 1-9 *	6-8	
Y	DE 89 12 132 U1 (OTTO GRASL [AT]) 19 April 1990 (1990-04-19)	6-8	
A	* page 1, line 3 - line 13 * * page 5, line 26 - page 7, line 12 * * page 10, line 29 - line 32; figure 1 *	1-5	
Y	DE 102 20 840 A1 (KREFT & GETT JET KUNSTSTOFF [DE] JET TAGESLICHT & RWA GMBH [DE]) 27 November 2003 (2003-11-27)	6-8	
A	* paragraph [0007] * * paragraph [0024] - paragraph [0033]; figure 1 *	1-5	
A	WO 97/33062 A1 (CAODURO CARLO [IT]; CAODURO PAOLO [IT]) 12 September 1997 (1997-09-12) * page 1, line 3 - line 5 * * page 4, line 5 - page 6, line 13; figure 1 *	1-8	TECHNICAL FIELDS SEARCHED (IPC) E04D E05F
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 25 February 2011	Examiner Giannakou, Evangelia
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p>			

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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
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25-02-2011

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
GB 2125884	A	14-03-1984	NONE	
DE 8912132	U1	19-04-1990	AT 103191 T	15-04-1994
			DE 59005118 D1	28-04-1994
			DK 0443050 T3	08-08-1994
			EP 0443050 A2	28-08-1991
			ES 2052974 T3	16-07-1994
			HU 55082 A2	29-04-1991
DE 10220840	A1	27-11-2003	NONE	
WO 9733062	A1	12-09-1997	AT 194025 T	15-07-2000
			CZ 9802780 A3	17-02-1999
			DE 69702337 D1	27-07-2000
			DE 69702337 T2	18-01-2001
			EP 0885341 A1	23-12-1998
			ES 2149574 T3	01-11-2000
			GR 3034377 T3	29-12-2000
			IT VI960029 A1	05-09-1997
			PL 328731 A1	15-02-1999
			PT 885341 E	29-12-2000
			SK 121298 A3	11-02-1999