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(54) **Actuator particularly for smoke vents**

(57) An actuator comprising a fluid-actuated jack, which can be activated by a gas contained under pressure inside a bottle (14); a percussion-type piercing element (15), which can move between a passive position for closing the bottle and an active position for piercing the bottle (14) in order to activate the jack; a mechanical flow control device, which comprises a sensor (32) for detecting hot gases and smoke and a flow control element (27) that is controlled by the sensor and is functionally associated with the piercing element (15) so as to allow the movement of the piercing element from the passive position to the active position when the sensor detects the presence of the hot gases and smoke. The jack comprises a cylinder (2) that is closed by a lower cap (4) that has a connecting element for supporting the bottle (14) inside the cylinder (2), and seats (31, 23, 12) for accommodating the sensor (32), the flow control element (27) and the piercing element (15).

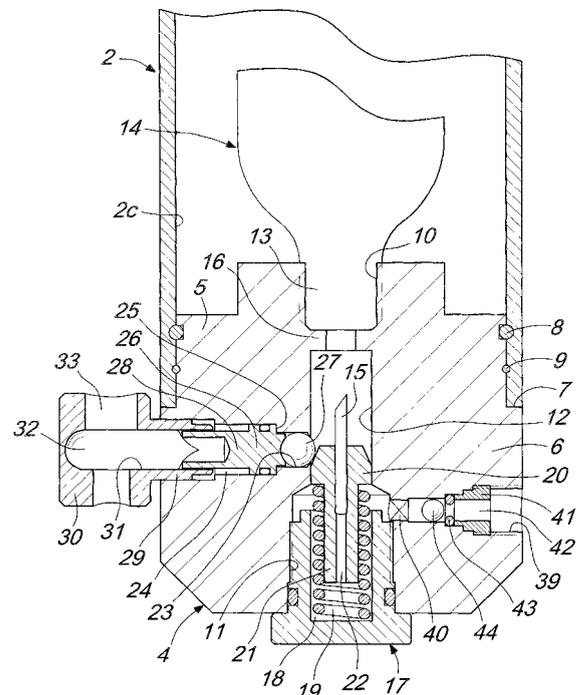


Fig. 2



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	GB 2 121 873 A (ROGER GRAHAM * WILLIAMS; ERIC * WILLIAMS) 4 January 1984 (1984-01-04) * page 2, line 87 - page 2, line 97; figure 4 *	1	F15B1/02 F15B15/14 F15B15/20 A62C2/24 E05F1/00
A	DE 24 08 200 A1 (GRESCHA-GESELLSCHAFT GREFE & SCHARF) 28 August 1975 (1975-08-28) * page 12, paragraph 1 *	1	
A	DE 29 46 244 A1 (BATKE, BERNHARD) 21 May 1981 (1981-05-21) * page 6, paragraph 2 - page 6, paragraph 3 *	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			F15B A62C E05F
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
Munich		8 November 2005	Toffolo, 0
<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.**

EP 05 10 3263

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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08-11-2005

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
GB 2121873	A	04-01-1984	NONE

DE 2408200	A1	28-08-1975	AT 337941 B 25-07-1977
			AT 98475 A 15-11-1976
			BE 825749 A1 20-08-1975

DE 2946244	A1	21-05-1981	NONE

EPO FORM P0459

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