



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) **EP 1 035 402 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
28.02.2001 Bulletin 2001/09

(51) Int. Cl.⁷: **F42D 3/00**, F42B 3/00,
F42D 1/04, F42B 39/30

(43) Date of publication A2:
13.09.2000 Bulletin 2000/37

(21) Application number: **00103199.6**

(22) Date of filing: **17.02.2000**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE**
Designated Extension States:
AL LT LV MK RO SI

(30) Priority: **11.03.1999 IT MI990493**

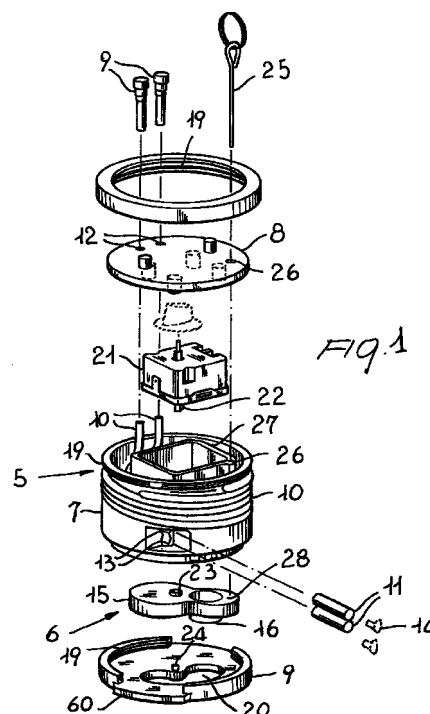
(71) Applicant: **Monterosa S.p.A.**
I-11020 Gressoney La Trinite (Aosta) (IT)

(72) Inventor: **Vassale, Roberto**
19022 Le Grazie-Portovenere (La Spezia) (IT)

(74) Representative:
Rapisardi, Mariacristina
Ufficio Brevetti Rapisardi S.r.l.,
Via Serbelloni, 12
20122 Milano (IT)

(54) **Device and method for artificially causing an avalanche**

(57) The device for artificially causing an avalanche, comprises an explosive mass (2) and an actuation system (3) thereof, which comprises an actuator (4) provided with first safety means (5) insensitive to all types of electric currents, and to environmental stresses, and at least second safety means (6) that can be actuated by said first safety means only when the device is placed on the fixed point of the mass of snow.



EP 1 035 402 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 00 10 3199

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	EP 0 108 013 A (COMMISSARIAT ENERGIE ATOMIQUE) 9 May 1984 (1984-05-09) * page 6, line 26 - page 8, line 8; figure 2 *	1-3,9	F42D3/00 F42B3/00 F42D1/04 F42B39/30
Y	---	4,13,14	
Y	EP 0 324 723 A (ZERMATT AIR AG) 19 July 1989 (1989-07-19) * column 2, line 10-60; figure 3 * * column 3, line 9-48 *	4,13,14	
X	---	1,2	
X	EP 0 690 285 A (AIR ZERMATT) 3 January 1996 (1996-01-03) * column 4, line 20-56; figure 3 * * column 5, line 33 - column 6, line 1 *		
A	---		
A	DE 43 02 252 C (F. WENDL) 9 September 1993 (1993-09-09)		
A	---		
A	EP 0 798 536 A (DOPPELMAYR & SOHN) 1 October 1997 (1997-10-01)		
A	---		
A	DE 37 20 133 A (ISRAEL STATE) 21 July 1988 (1988-07-21)		F42B F42D F42C
A	---		
A	GB 2 185 093 A (MP COMPACT ENERGY LTD) 8 July 1987 (1987-07-08)		
A	---		
A	DE 90 16 841 U (JÜNGHANS) 16 April 1992 (1992-04-16)		
A	---		
A	WO 80 01511 A (SCHROECKSNADEL P ; HABICHER K (AT)) 24 July 1980 (1980-07-24) -----		
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 9 October 2000	Examiner VAN DER PLAS J.
CATEGORY OF CITED DOCUMENTS 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		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	

EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 00 10 3199

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.

09-10-2000

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0108013 A	09-05-1984	FR 2535045 A AT 28705 T	27-04-1984 15-08-1987
EP 0324723 A	19-07-1989	CH 675023 A	15-08-1990
EP 0690285 A	03-01-1996	NONE	
DE 4302252 C	09-09-1993	NONE	
EP 0798536 A	01-10-1997	AT 64196 A CN 1167906 A JP 10054700 A US 5872326 A	15-08-2000 17-12-1997 24-02-1998 16-02-1999
DE 3720133 A	21-07-1988	NONE	
GB 2185093 A	08-07-1987	GB 2151759 A AU 567383 B AU 3680284 A CY 1455 A HK 30089 A IN 164142 A SG 55488 G US 4635554 A	24-07-1985 19-11-1987 27-06-1985 21-07-1989 14-04-1989 21-01-1989 16-06-1989 13-01-1987
DE 9016841 U	16-04-1992	CH 682618 A FR 2670576 A	29-10-1993 19-06-1992
WO 8001511 A	24-07-1980	EP 0022807 A	28-01-1981



European Patent
Office

Application Number
EP 00 10 3199

CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- ☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- ☒ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1-14, 20, 22



European Patent
Office

**LACK OF UNITY OF INVENTION
SHEET B**

Application Number
EP 00 10 3199

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims: 1-14, 20, 22

Blasting cartridge for triggering a snow slide

2. Claims: 15-19, 21, 23

Safety container for storing detonators

3. Claims: 24-26

Method for triggering a snow slide