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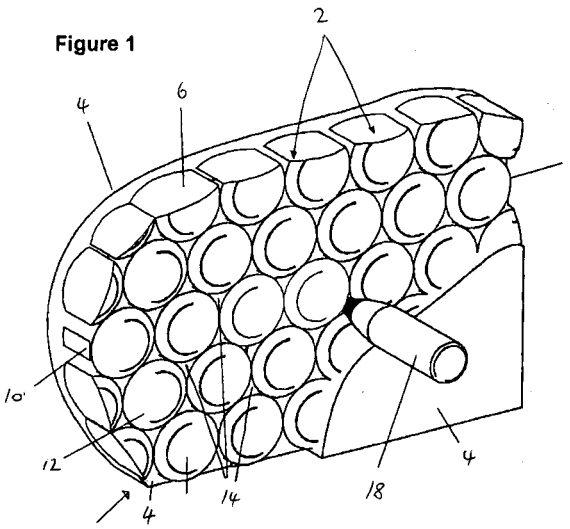
(54) **Composite armor plate and method for using the same**

(57) The invention provides an armor plate for absorbing and dissipating kinetic energy from armor piercing 7.62mm projectiles, the armor plate comprising a plurality of ceramic pellets and a solidified material, each ceramic pellet having a body portion and a convexly curved end portion, each body portion having two opposite ends, an axis passing through each end and a substantially constant cross-section along the axis, and each convexly curved end portion extending from an end of the corresponding body portion, each body portion having a body portion length along the axis between the two ends, the ceramic pellets being embedded in the solidified material so that the solidified material retains the ceramic pellets in a ceramic pellet layer which is one pellet thick with the convexly curved end portions lying at or adjacent an impact receiving side of the armor plate, wherein the ceramic pellet layer is the only layer of ceramic pellets in the armor plate, wherein the ceramic pellet layer has an edge extending therearound formed by a subset of the ceramic pellets, wherein the ceramic pellets are arranged so that the body portion of substantially each pellet, other than of the pellets of the subset, lies in contact with or closely adjacent to the respective body portions of six neighboring ones of the ceramic pellets.

Figure 1



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EUROPEAN SEARCH REPORT

Application Number
EP 08 25 3752

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,D	WO 98/15796 A1 (GOODANEW MARTIN ERIC [GB]; COHEN MICHAEL [IL]) 16 April 1998 (1998-04-16) * page 1, first paragraph * * page 3, third paragraph * * page 6, third paragraph * * page 8, second & third paragraph * * page 10, second paragraph - page 14, first paragraph* * page 15, penultimate paragraph * * figures 1, 5-11 * -----	1-15	INV. F41H5/04
A,D	EP 1 521 051 A1 (COHEN MICHAEL [IL]) 6 April 2005 (2005-04-06) * the whole document * -----	1-15	
A,D	US 5 763 813 A (COHEN MICHAEL [IL] ET AL) 9 June 1998 (1998-06-09) * column 3, lines 3-15 * * column 2, lines 37-50 * * column 4, lines 5-29 * * column 5, line 66 - column 6, line 6 * -----	1,3,4	

TECHNICAL FIELDS SEARCHED (IPC)

F41H

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	15 October 2012	Van Leeuwen, Erik

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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1

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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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15-10-2012

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9815796 A1	16-04-1998	AT 198102 T	15-12-2000
		AU 719951 B2	18-05-2000
		AU 4567197 A	05-05-1998
		CA 2264623 A1	16-04-1998
		CN 1231723 A	13-10-1999
		DE 69703699 D1	18-01-2001
		DE 69703699 T2	09-08-2001
		EP 0929788 A1	21-07-1999
		HK 1022348 A1	15-02-2002
		IL 119386 A	28-09-2000
		KR 20000048746 A	25-07-2000
		NZ 334417 A	27-10-2000
		TR 9900698 T2	21-06-1999
		US 5972819 A	26-10-1999
		WO 9815796 A1	16-04-1998
EP 1521051 A1	06-04-2005	AT 398273 T	15-07-2008
		CA 2477994 A1	02-04-2005
		EP 1521051 A1	06-04-2005
		US 2006288855 A1	28-12-2006
US 5763813 A	09-06-1998	NONE	

EPO FORM P0459

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