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(54) **Laying with spacers for concrete works and spacers cartridge**

(57) Process for the laying, in a semi-automatic manner, of spacers (1) for cement structures comprising a production step of the spacer (1) by means of moulding or similar processes, a conveying step of the spacers (1) in suitable means, for example a load hopper, an orien-

tation step of the spacers, a stacking step of the spacers (1) so to form a cartridge (6) consisting of a plurality of spacers, and an actual laying step in which the single spacer is shot into its final position by means of a gun (9) similar to the nail-shooter guns or the like.

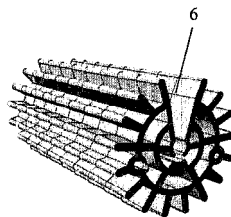


Fig. 5

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EUROPEAN SEARCH REPORT

 Application Number
EP 08 00 2263

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y	DE 74 04 193 U (DAUSEND H) 22 May 1974 (1974-05-22) * page 1, paragraph 1 - page 2, paragraph 1 * * page 2, paragraph 3 - paragraph 8 * * page 2, paragraph 9 - page 3, paragraph 1 * * page 3, paragraph 11 - page 4, paragraph 3 * * page 5, paragraph 3 - page 6, paragraph 1; claim 1; figures 1-8 * -----	1,2	INV. E04C5/16 E04C5/20 E04G21/00
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A	DE 31 13 922 A1 (ATTEMA KUNSTSTOFFENIND [NL]) 1 April 1982 (1982-04-01) * page 4, line 1 - line 24 * * page 7, line 26 - page 9, line 24; figures 1-4 * -----	1-3	TECHNICAL FIELDS SEARCHED (IPC)
A	GB 1 193 996 A (HALMSTADS JARNVERKS AB [SE]) 3 June 1970 (1970-06-03) * page 1, line 8 - line 10 * * page 1, line 38 - page 2, line 6 * * page 2, line 19 - line 128; claims 1,2,9; figures 1-5 * -----	1-3	E04C E04G
A	DE 87 02 476 U1 (GEBR. SEIFERT GMBH & CO, 5880 LUEDENSCHIED, DE) 9 April 1987 (1987-04-09) * page 1, paragraph 1 - paragraph 3 * * page 7, paragraph 2 - page 9, paragraph 2; claim 1 * ----- -/--	1-3	
5 The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 22 December 2008	Examiner Giannakou, Evangelia
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			

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EUROPEAN SEARCH REPORT

Application Number
EP 08 00 2263

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	DE 91 07 743 U1 (DAUSEND, HANS-WERNER, 5600 WUPPERTAL, DE) 29 August 1991 (1991-08-29) * page 1, paragraph 1 * * page 4, paragraph 8 - page 6, paragraph 4; claim 1; figures 1-6 * -----	1-3	
			TECHNICAL FIELDS SEARCHED (IPC)
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 22 December 2008	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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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due 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 those claims for which no payment was due.

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:

1-3

☐ The present supplementary 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 (Rule 164 (1) EPC).



**LACK OF UNITY OF INVENTION
SHEET B**

Application Number

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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: 1-3

Process for laying of spacers for cement structures by shooting them into their final positions with a gun.

2. claims: 4-6

Cartridge comprising spacers, which are held together by some coupling means.

3. claims: 7,14,15

Semi-automatic unit comprising a pneumatic gun and a magazine, the magazine being suitable for housing a cartridge of spacers.

4. claims: 8-13

Magazine suitable for housing a cartridge, the magazine comprising a track to maintain the orientation of the cartridge.

**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
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

22-12-2008

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