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(12) # EUROPEAN PATENT APPLICATION

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(54) **Concentrator for a shotgun shell wad.**

(57) A shot concentrating device fitted to the outside of a shotgun plastic wad sheath (3) and having the form of a ring (2) mounted at the front end of the leaves (4).

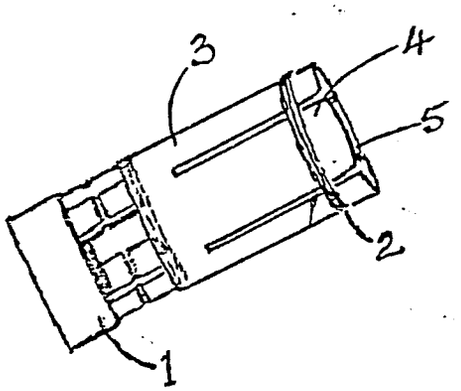

Fig. 1

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SHOT CONCENTRATOR SHOT - GUN CARTRIDGE LOADING

GB2120155

TITLE MODIFIED

see front page

I, ALBERT VICTOR GREEN, of British Nationality, of The Bungalow, Slade, Kingsbridge, Devon, TQ/7 4 BL., in the United Kingdom of Great Britain, do hereby declare the invention for which I pray, a European patent may be granted to me, and the method by which it is to be performed to be particularly described in and by the following statement:-

The concentrator(2) is used in conjunction with the shot—sheath type plastic wads(1) now almost standard in the loading of shot-gun cartridges, in which the whole shot charge is enclosed within the sheath(3), the sheath being split or sectioned to form four leaves(4) which arrange for flexibility. The concentrator,(2) hereinafter referred to as the 'ring'(2) takes the form of a number of turns or 'whipping' of cotton or silk thread wound on to the outside of the leaves(4) at 5 m/m from the front or open end.

A 'bursting' pressure or force within the sheath when the cartridge is fired - brought about by the immense forward thrust of the wad(1) 'seats' the ring in it's own groove in the plastic thus preventing any shift or movement from it's original position on the sheath.(3)

Upon emerging from the gun muzzle the leaves(4) of the sheath are held or constricted by the ring(2) which prevents them splaying open, as happens when no ring is fitted, instantly shedding the shot and producing normal 'scatter' of the shot: The effect of this constricting action is to delay the moment when wad and shot part company thus concentrating the shot much more closely in the target area, than would be the case were there to be no ring fitted.

No problem can arise with internal barrell pressure since the outside diameter of the ring is no greater than the minimum diameter of a gun barrell bore which has maximum choke, (I m/m constriction).

I 8. A shot concentrator (2) used in conjunction with the shot-sheath type plastic shot-gun cartridge wads (I), which takes the form of any type or form of plastic ring placed on to the outside of the leaves of the sheath at the front end.

CLAIMS

1. A shot concentrator (2) used in conjunction with the shot-sheath type plastic shot-gun cartridge wads (I), which takes the form of a number of turns or 'whipping' of cotton thread wound on or placed on to the outside of the leaves of the sheath at the front end.

2. A shot concentrator (2) used in conjunction with the shot-sheath type plastic shot-gun cartridge wads (I), which takes the form of a number of turns or 'whipping' of silk thread wound on or placed on to the outside of the leaves of the sheath at the front end.

3. A shot concentrator (2) used in conjunction with the shot-sheath type plastic shot-gun cartridge wads (I), which takes the form of a number of turns or 'whipping' of any type of man-made fibre wound on or placed on to the outside of the leaves of the sheath at the front end.

4. A shot concentrator (2) used in conjunction with the shot-sheath type plastic shot-gun cartridge wads (I), which takes the form of a number of turns or 'whipping' of any type of monofilament wound on or placed on to the outside of the leaves of the sheath at the front end.

5. A shot concentrator (2) used in conjunction with the shot-sheath type plastic shot-gun cartridge wads (I), which takes the form of a number of turns or 'whipping' of any type of metal wire or filament wound on or placed on to the outside of the leaves of the sheath at the front end.

6. A shot concentrator (2) used in conjunction with the shot-sheath type plastic shot-gun cartridge wads (I), which takes the form of a number of turns or 'whipping' of any type or form of natural fibre wound on or placed on to the outside of the leaves of the sheath at the front end.

7. A shot concentrator (2) used in conjunction with the shot-sheath type plastic shot-gun cartridge wads (I), which takes the form of any type or form of metal ring placed on to the outside of the leaves of the sheath at the front end.

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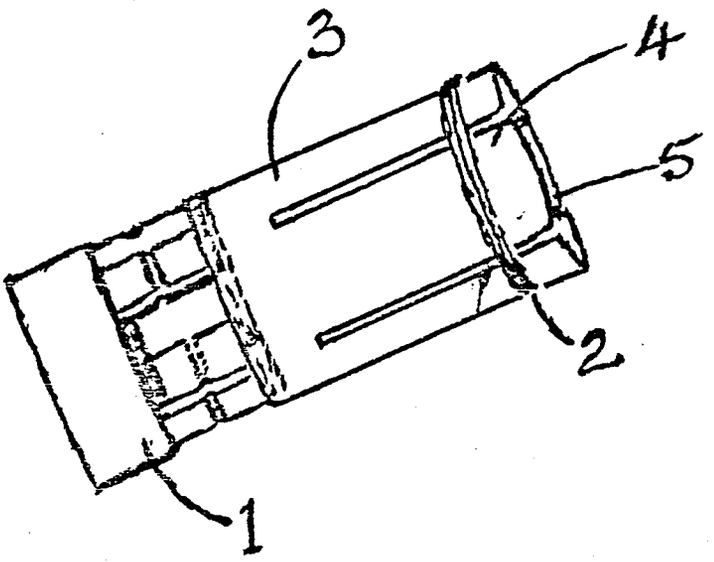

Fig. 1

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EUROPEAN SEARCH REPORT

0120155
Application number

EP 83 30 1717

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. ³)
X	BE-A- 407 916 (PITOT BASTIN) * Whole document *	1-6	D 01 F 6/62 D 01 D 5/088 D 02 G 1/02
X	FR-A-2 343 218 (BOURLANGE) * Whole document *	7,8	
X	FR-A-2 203 968 (YURRITA GABILONDO) * Page 2, lines 19-25; figures 1,2 *	8	
X	GB-A-1 124 236 (IMPERIAL CHEMICAL) * Page 1, lines 52-72; figures 1-8 *	8	
A	DE-C- 632 203 (DUPRE)		TECHNICAL FIELDS SEARCHED (Int. Cl. ³)
A	CH-A- 3 019 (SOLBRIG)		D 01 F D 01 D
A	DE-A-2 022 582 (OLIN)		
A	US-A-2 343 818 (SWEELEY)		

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	12-07-1983	VAN DER PLAS J.M.

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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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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