

**EUROPEAN PATENT APPLICATION**

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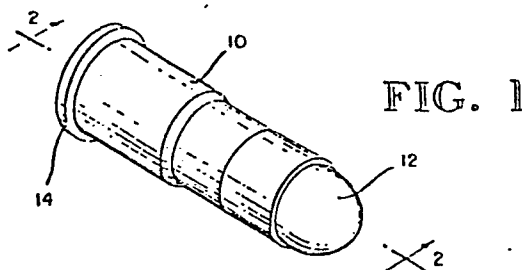
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**Plastic casing cartridge.**

A cartridge has a one-piece reusable plastic casing that fits over a metal or plastic end cap and holds a bullet. The bullet end of the casing is provided with a ring or a plurality of rings or with a pronounced radially inward taper to engage corresponding surfaces on the bullet so that the bullet may snap into the casing. The bullet end of the casing is radially expandable to allow release of the bullet upon detonation of the powder in the cartridge. The plastic casing is provided with an end cap sealing flange generally being an axially thin, radially inwardly extending flange which fits snugly against the end cap of the cartridge. The flange is thick enough to withstand the high gas pressures upon firing of the powder, but is thin and flexible enough to elastically deform to produce a tight elastic seal against escape of the high-pressure gases around the end cap. The seal may be achieved, also, with a thick, rigid flange and a compressible gasket.



**FIG. 1**



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	DE-A- 2 705 235 (WAGNER et al.)  * Figure 1; page 2; page 3, paragraphs 1,3; page 4, lines 15-19 *  ---	1	F 42 B 5/30
X	GB-A- 1 015 516 (WHIPPLE et al.)  * Figure 1; page 2, lines 94-128; page 3, lines 15-47 *  ---	1,2,7	
X	FR-A- 2 141 742 (BOFORS)  * Figure 1 *  ---	1,2	
X	US-A- 3 026 802 (BARNET et al.)  * Figure 1 *  -----	1,2	
			TECHNICAL FIELDS SEARCHED (Int. Cl. 3)
			F 42 B
<del>The present search report has been drawn up for the reasons</del> <del>XXXXXXXXXXXXXXXXXXXXXXXXXXXX</del>			
Place of search		Date of completion of the search	Examiner
The Hague		24-10-1985	FISCHER G.
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	



**CLAIMS INCURRING FEES**

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

- ☐ All claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the claims fees 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 claims:
- ☐ 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.

**X LACK OF UNITY OF INVENTION**

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

namely:

- 1) Claims 1-7: End cap seal in a plastic casing
- 2) Claims 8-12: Reusable connection between bullet and casing

- ☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ 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 has 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: 1-7