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*[Continued on next page]*

**(54) Title:** THIN-WALLED CARTRIDGE CASING WITH EXTERIOR REINFORCED HEAD END

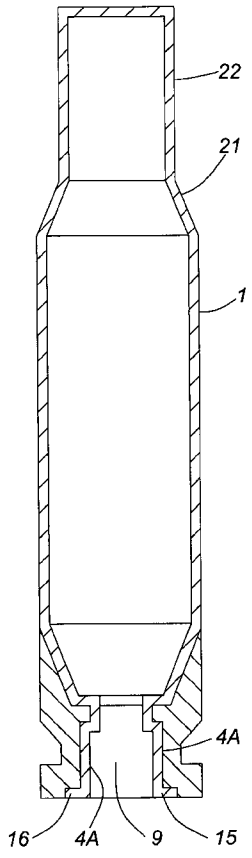


FIG. 2

**(57) Abstract:** A cartridge or ammunition casing is made of two principal components, one providing the outer casing sidewall and the other, in the form of an external reinforcing member or plug, defining the head end. The casing sidewall extends inwardly into the plug and through a primer well opening formed therein to engage these two parts together. The casing sidewall may have two diameters formed by the method of first forming a cylindrical tube of reduced diameter and then expanding a portion of that tube to a larger, final, diameter. This same technique may be used to produce a rimless casing with an extraction groove.

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**IPR2025-00861**
**Sig Sauer v. True Velocity**
**EX1008 - Page 2 of 5**

# INTERNATIONAL SEARCH REPORT

International application No
PCT/USQ7/0I479

A CLASSIFICATION OF SUBJECT MATTER
IPC **F42B S/26(** 2006 0 1),5/28( 2006 0 1),5/30( 2006 **01),5/32(** 2006 0 1)

USPC 102/464,465,466,467 468 469,470,471
According to International Patent Classification (IPC) or to both national classification and IPC

B FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U S 102/464,46 $_{5>}$466,467,468,469,470 471

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and where practicable, search terms used)
search terms anvil

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☒ Further documents are listed in the continuation of Box C ☐ See patent family annex

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| * | **Special categories of cited documents** | T" | **later document published after the international filing date or pno π ty date and not m conflict with the application but cited to understand the principle or theory underlying the invention** |
| A | **document defining the general state of the art which is Dot considered lo be of particular relevance** | "X | **document of particular relevance the claimed invention cannot be considered novel or cannot be considered to involve an mvenbve step wben the document is taken alone** |
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| O | **document referring to an oral disclosure use exhibilion or other means** | | |
| P | **document published prior to the international filing dale but later than the priority date claimed** | | |

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| Date of the actual completion of the international search<br>03 June 2008 (03 06 2008) | Date of mailing of the international search report<br>03 JUL 2008 |
| Name and mailing address of the ISAAJS<br>Mail Stop PCT Arm 1SAAJS<br>Commissioner for Patents<br>PO Box 1450<br>Alexandria, Virginia 223 13 1450<br>Facsimile No (571) 273-3201 | Autho πzed officer<br>Michael Carone<br>Telephone No 571 -272-3600 |

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INTERNATIONAL SEARCH REPORT

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

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| Y | US 0,004,076 A (MOFFATT) 19 July 1870 (19.07.1870), columns 1 and 2. | 4,6 |



IPR2025-00861
Sig Sauer v. True Velocity
EX1008 - Page 4 of 5

BOX III. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING
Group I: Claims 1-14
Group II: Claims 15-17
Group III: Claims 18-21

There exists a lack of unity between Groups I and II because: The special technical feature of Group I is not found in Group II. Said special technical feature being a casing shell extension that is positioned in a exterior reinforcing plug such that the exterior reinforcing plug is shielded from being exposed to the propellant on firing by the casing shell.

There exists a lack of unity between Groups I and III because: The special technical feature of Group I is not found in Group III. Said special technical feature being a casing shell extension that is positioned in a exterior reinforcing plug such that the exterior reinforcing plug is shielded from being exposed to the propellant on firing by the casing shell.

There exists a lack of unity between Groups II and III because: The special technical feature of Group III is not found in Group $\pi$. Said special technical feature of Group ID being that the casing is for blank ammunition to be used as a substitute for projectile containing ammunition.



**IPR2025-00861**
**Sig Sauer v. True Velocity**
**EX1008 - Page 5 of 5**