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(71) Applicant: BAE SYSTEMS PLC [GB/GB]; 6 Carlton Gardens, London SW1Y 5AD (GB).

(72) Inventors: CARR, Andrew; BAE Systems plc, Broad Oak, Portsmouth Hampshire PO3 5PQ (GB). GIRLING, Timothy Keith; BAE Systems Surface Ships Limited, Broad Oak, Portsmouth Hampshire PO3 5PQ (GB). THOMSON, Murray; BAE Systems Surface Ships Limited, Broad Oak, Portsmouth Hampshire PO3 5PQ (GB).

(74) Agent: BAE SYSTEMS PLC, GROUP IP DEPT; PO BOX 87, Farnborough Aerospace Centre, Farnborough Hampshire GU14 6YU (GB).

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(54) Title: A MUNITION AND MUNITION ASSEMBLY

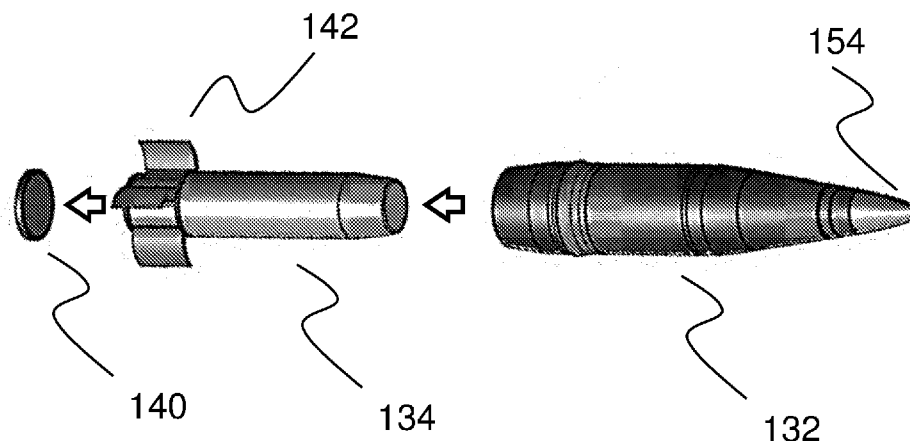


FIG. 12

(57) Abstract: According to a first aspect of the present invention, there is provided a munition assembly, arranged to be launched from a gun, the assembly comprising: a carrier for a submunition, the carrier comprising a cavity in which the submunition is located; and a submunition, carried by the carrier in the cavity, the submunition arranged to be controllably expelled from the carrier; the submunition comprising: a submunition explosive charge; and a submunition fuze, wherein: the munition assembly is adapted to be launched, into the air, from a gun barrel, where the submunition is then arranged to be controllably expelled from the carrier and enter a body of water; and the submunition fuze is adapted to trigger the submunition explosive charge under water.





OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

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- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) Date of publication of the international search report:

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INTERNATIONAL SEARCH REPORT

International application No
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A. CLASSIFICATION OF SUBJECT MATTER		
INV.	F42B12/62	F42B12/20
ADD.	F42C3/00	F42C13/08
	F42C9/00	F42C13/06
	F42B12/36	F42B30/08
	F42C5/00	F42C7/00
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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) F42B F42C		
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) EPO-Internal, WPI Data		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 321 456 C (GIOVANNI EMANUELE ELIA) 27 May 1920 (1920-05-27)	1-6,9-13
Y	page 1, line 21 - page 2, line 34; figures 1-4	7,8
Y	----- DE 39 37 762 A1 (DIEHL GMBH & CO [DE]) 16 May 1991 (1991-05-16) column 2, line 52 - column 5, line 25; figures 1-3	7,8
X	----- EP 0 281 088 A2 (DIEHL GMBH & CO [DE]) 7 September 1988 (1988-09-07) column 3, line 23 - column 5, line 39; figures 1, 2	1-5,9-13

☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.		
* Special categories of cited documents : "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search 10 March 2020		Date of mailing of the international search report 24/06/2020
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016		Authorized officer Kasten, Klaus

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2019/053533

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of Item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-13

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-13

Explosive submunition

2. claims: 14, 15

Reconnaissance sub-projectile

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/GB2019/053533

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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		US 4833991 A	30-05-1989
