

#### Search history

Search PA=(LUIS EDUARDO TOBON TRUJILLO) (Results 1)  
1:

Search fn=(69722354:10 or 69580980:10 or 69194201:10 or 69194200:10 or 69087679:10 or 69087671:10 or 68897707:10 or 68867042:10 or 68867029:10 or 68867014:10 or 68867006:10 or 68866993:10 or 68866983:10 or 68866972:10 or 68866965:10 or 68818553:10 or 68460244:10 or 68016432:10 or 67827293:10 or 67613696:10 or 67596756:10 or 67387115:10 or 67364616:10 or 67287381:10 or 67258662:10 or 66936710:10 or 66892104:10 or 66729314:10 or 66311482:10 or 66224933:10 or 66178613:10 or 66104854:10 or 65928051:10 or 65555240:10 or 65375220:10 or 65331328:10 or 65066371:10 or 64823356:10 or 64747313:10 or 64734476:10 or 64424028:10 or 64216781:10 or 64208359:10 or 63863656:10 or 63301325:10 or 63301314:10 or 63111325:10 or 62842597:10 or 62763917:10 or 61826888:10 or 61768074:10 or 61747877:10 or 61410183:10 or 61138398:10 or 60951179:10 or 60337740:10 or 60269516:10 or 60173525:10 or 59842625:10 or 59824895:10 or 59815982:10 or 59815835:10 or 59815590:10 or 59409443:10 or 59329320:10 or 59271659:10 or 59223075:10 or 59184430:10 or 58964350:10 or 58647104:10 or 58546107:10 or 58393005:10 or 58349113:10 or 58223122:10 or 58059232:10 or 57832530:10 or 57813607:10 or 57804889:10 or 57557245:10 or 57429566:10 or 57176673:10 or 56820933:10 or 56704830:10 or 56530126:10 or 56435057:10 or 56133449:10 or 55899623:10 or 55474591:10 or 55341345:10 or 55306522:10 or 55003791:10 or 55001191:10 or 54820404:10 or 54706957:10 or 53944253:10 or 53832078:10 or 53765087:10 or 53701841:10 or 52563526:10 or 52240030:10) (Results 100)

Search PN=(US3994231) (Results 1)  
3:

Search fn=(22282987 or 12636854 or 2229517 or 3793333 or 3809593 or 2229517 or 11304368 or 10813963 or 11187766 or 42772698 or 48434564 or 20018720 or 21856424 or 22815151 or 22222123 or 21940974 or 22831417) (Results 16)

Search electromechanical and fuze (Results 242)  
5:

Search IC=(F42C) (Results 17641)  
6:

Search 5 and 6 (Results 142)  
7:

Search warning or security (Results 1000000)  
8:

Search 7 and 8 (Results 23)  
9:

#### 1) Family number: 18782112 (US3857338A)

© PatBase

**Title:** WARHEAD

**Abstract:** Warhead for bombs, projectiles, rockets and the like having a casing with several projectiles accommodated therein. The projectiles are disposed in launcher tubes which are connected with each other by a common central connecting component to form an independent unit in a symmetrical arrangement with respect to the axis of the component. The independent unit is equipped with a descent-retarding device on one side thereof positioned toward one direction of the axis, while the other side is provided with a stabilizing device toward the other direction of the axis to vertically position the axis during descent. Preferred embodiments use parachutes as descent-retarding devices and rigid stabilizer rods or flexible members to interconnect a stabilizing weight with the respective independent units. Accommodations are made to telescope the stabilizer rods into one another to limit the total space utilized in the stored position. In the embodiments utilizing flexible members, the weights are provided with a recess at the undersides thereof to accommodate the next adjacent parachute and independent unit when in the stored position in the warhead.

#### **Classifications:**

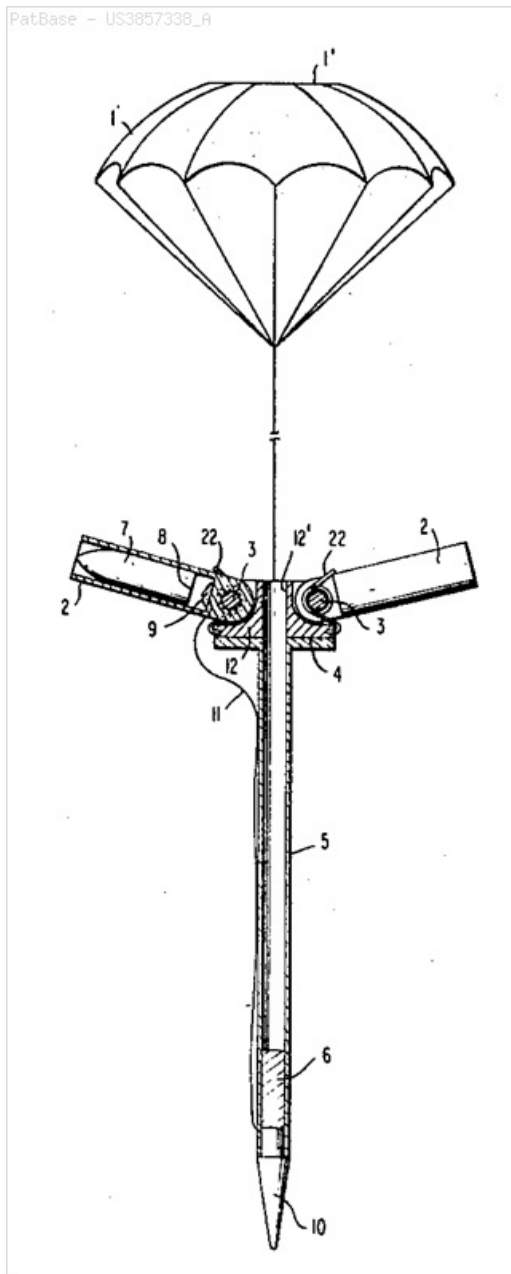
**International (IPC 8-9):** F42B10/56 F42B12/58 (Advanced/Invention);  
F42B10/00 F42B12/02 (Core/Invention)

**International (IPC 1-7):** B65D85/20 F42B13/38 F42B13/50  
F42B25/00 F42B25/02 F42C1/14 F42C19/12

**CPC:** F42B12/58 F42B10/56

**European:** F42B10/56 F42B12/58

**US:** 102/383 102/387 102/4 102/480 102/5

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| DE2004637 A1       | 19710812         | DE19702004637      | 19700203         |
| GB1337643 A        | 19731114         | GB19710020848      | 19710419         |
| US3857338 A        | 19741231         | US19720300226      | 19721024         |
| US3948175 A        | 19760406         | US19740485268      | 19740702         |

**Priority:**

DE19702004637 19700203      US19710112379 19710203      US19720300226 19721024  
 US19740485268 19740702

**Probable Assignee:** DYNAMIT NOBEL AG

**Assignee(s):** (std): DYNAMIT NOBEL AG

**Assignee(s):** DYNAMIT NOBEL AG DT ; DYNAMIT NOBEL AKTIENGESELLSCHAFT

**Inventor(s):** (std): BUCKLISCH L ; BUCKLISCH LUDWIG

**Inventor(s):** BUCKLISCH L OE

**2) Family number: 4012439 (US3802343A)**

© PatBase

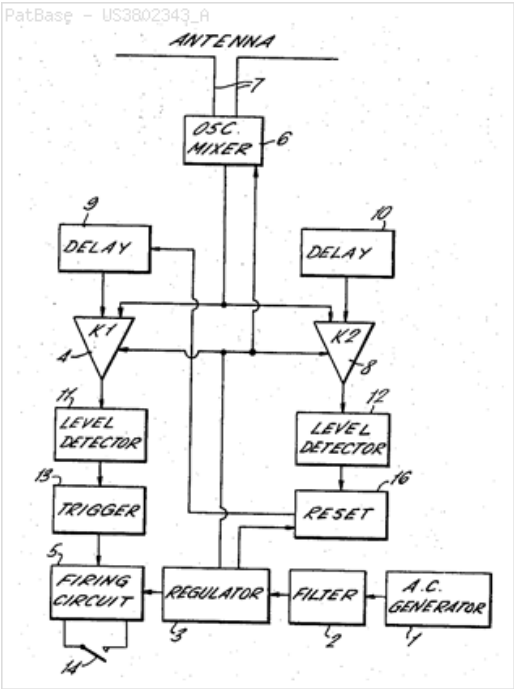
**Title:** PROXIMITY FUSE

**Abstract:** A proximity fuse which is insensitive to spurious signals which could cause false detonation of the projectile. Two frequency selective amplifiers having different band-pass characteristics both receive the same input signals. The narrower band-pass filter activates the detonator, while the broader band-pass filter will block the narrow channel if a signal exceeding a given value is received at the input.

**Classifications:**

**International (IPC 8-9):** F42C 13/00 F42C 13/04 (Advanced/Invention);  
 F42C 13/00 (Core/Invention)

**International (IPC 1-7):** F42B F42C 13/00 F42C 13/04 G01S7/28  
 G01S7/36 H04B1/10



Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| DE2311094 A1       | 19730913         | DE19732311094      | 19730306         |
| DE2311094 B2       | 19760729         | DE19732311094      | 19730306         |
| DE2311094 C3       | 19770310         | DE19732311094      | 19730306         |
| DE2411733 A1       | 19741010         | DE19742411733      | 19740312         |
| DE2411733 C2       | 19841115         | DE19742411733      | 19740312         |
| FR2175810 A1       | 19731026         | FR19730008280      | 19730308         |
| FR2175810 B1       | 19771223         | FR19730008280      | 19730308         |
| FR2223658 A2       | 19741025         | FR19740009884      | 19740322         |
| FR2223658 B2       | 19780106         | FR19740009884      | 19740322         |
| GB1419596 A        | 19751231         | GB19730011263      | 19730308         |
| GB1450968 A        | 19760929         | GB19740009388      | 19740301         |
| IT1050502 A        | 19810310         | IT19740067895      | 19740321         |
| IT981212 A         | 19741010         | IT19730021323      | 19730308         |
| NO130206 B         | 19740722         | NO19720000777      | 19720310         |
| NO132657 B         | 19750901         | NO19730001223      | 19730326         |
| NO132657 C         | 19751210         | NO19730001223      | 19730326         |
| SE385499 B         | 19760705         | SE19730003370      | 19730309         |
| SE385499 C         | 19761014         | SE19730003370      | 19730309         |
| SE394140 B         | 19770606         | SE19730012161      | 19730906         |
| SE394140 C         | 19770915         | SE19730012161      | 19730906         |
| US3802343 A        | 19740409         | US19730340034      | 19730312         |
| US3934510 A        | 19760127         | US19740454611      | 19740325         |

Priority:

NO19720000777 19720310      US19730340034 19730312      NO19730001223 19730326

Probable Assignee: KONGSBERG VAPENFAB AS

Assignee(s): (std): KONGSBERG VAAPENFABRIKK AS ; KONGSBERG VAPENFAB AS

Assignee(s): KONGSBERG VAPENFABRIK AS NO ; AS KONGSBERG VAPENFAB NO ; KONGSBERG VAPENFABRIKK AS ; KONGSBERG VAPENFABRIK AS ; KONGSBERG VAAPENFABRIKK KONGSBERG AS ; KONGSBERG VAPENFABRIKK A S ; AS KONGSBERG VAPENFABRIKK ; AKTIESELSKABET KONGSBERG VAAPENFABRIKK KONGSBERG NORWEGEN ; KONGSBERG VAPENFABRIKK AS NO ; A S KONGSBERG VAAPENFABRIKK KONGSBERG ; A S KONGSBERG VAPENFABRIK ; A S KONGSBERG VAPENFABRIKK ; AKTIESELSKABET KONGSBERG VAAPENFABRIKK ; AKTIESELSKABET KONGSBERG VAAPENFABRIKK KONGSBERG NO

Inventor(s): (std): DAHL B ; DAHL BJOERN ; DAHL BJORN

Inventor(s): DAHL BJOERN KONGSBERG NORWEGEN ; DAHL BJOERN KONGSBERG NO ; B DAHL ; DAHL BJOERN KONGSBERG ; DAHL B NO

3) Family number: 1097609 (US3839963A)

© PatBase

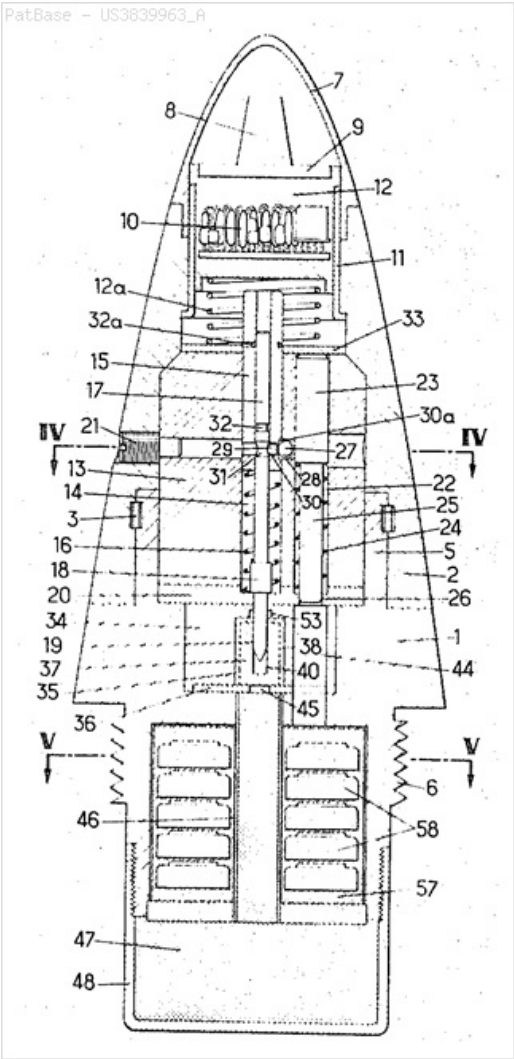
Title: PROXIMITY FUSE FOR MISSILES

Abstract: A compact fuse designed to be armed after cessation of acceleration and provided with a plurality of safety means; a cap adapted to be set in an inoperative position by a rotation of 90 DEG with reference to the fuse body, a cover for the cap adapted to collapse towards the striker and to prevent its releasing operation in case of a premature impact, a detonator-carrier adapted to be shifted laterally out of registry with the striker, a weight controlled by inertia and controlling operation of the striker and an arming weight releasing through inertia in striker.

Classifications:

International (IPC 8-9): F42C13/02 F42C14/00 F42C15/184  
F42C15/24 F42C19/06 F42C9/14 G05D1/12 (Advanced/Invention);  
F42C13/00 F42C14/00 F42C15/00 F42C19/00 F42C9/00

G05D1/12 (Core/Invention)  
**International (IPC 1-7):** F42C13/00 F42C13/02 F42C13/04  
F42C15/00 F42C19/00  
**CPC:** F42C9/148 F42C13/02 F42C15/184 F42C15/24 F42C19/06  
**European:** F42C13/02 F42C15/184 F42C15/24 F42C19/06  
F42C9/14G  
**US:** 102/214 102/247 102/262 102/265



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| DE2318039 A1       | 19731031         | DE19732318039      | 19730410         |
| FR2180159 A5       | 19731123         | FR19720012527      | 19720410         |
| GB1371480 A        | 19741023         | GB19730017224      | 19730410         |
| IL41998 A0         | 19730629         | IL19730041998      | 19730410         |
| IL41998 A1         | 19760930         | IL19730041998      | 19730410         |
| IT983756 A         | 19741111         | IT19730022823      | 19730410         |
| JP49048200 A2      | 19740510         | JP19730040781      | 19730410         |
| NL7304993 A        | 19731012         | NL19730004993      | 19730410         |
| NO135446 B         | 19761227         | NO19730001444      | 19730409         |
| NO135446 C         | 19770405         | NO19730001444      | 19730409         |
| US3839963 A        | 19741008         | US19730349124      | 19730409         |

**Priority:**

FR19720012527 19720410

**Probable Assignee:** NATHAN GUY

**Assignee(s):** (std): NATHAN GUY ; CNIM ; CONST NAVALES ET IND DE LE MED ; CONSTR NAVALES IND  
**Assignee(s):** CONSTRUCTIONS NAVALES ET IND DE LA MEDITERRANEE CNIM ; CONSTR NAVALES ET IND DE LA MEDITERRANEE CNIM ; NATHAN GUY FR ; CONSTRUCTIONS NAVALES ET INDUSTRIELLES DE LA MEDITERRANEE C N I M PARIS ; CONSTRUCTIONS NAVALES ET INDUSTRIELLES DE LE MEDITERRANEE ; CONSTRUCTIONS NAVALES ET INDUSTRIELLES DE LA MEDITERRANEE ; CONSTRUCTIONS NAVALES ET INDUSTRIELLE DE LA MEDITERRANEE ; CONSTRUCTIONS NAVALES ET IND DE LA MEDITERRANEE CNIM FR ; CONSTRUCTIONS NAVALES ET INDUSTRIELLES DE LA MEDITERRANEE CNIM  
**Inventor(s):** (std): NATHAN G ; NATHAN G E ; NATHAN GUY E ; VARAUD C ; VARAUD C A ; VARAUD CLAUDE A  
**Inventor(s):** VARAUD CLAUDE A NOGENT SUR MARNE ; VARAUD C FR ; NATHAN GUY E ISSY LES MOULINEAUX ; NATHAN G FR  
**Agent(s):** REINHOLD COHN AND PARTNERS

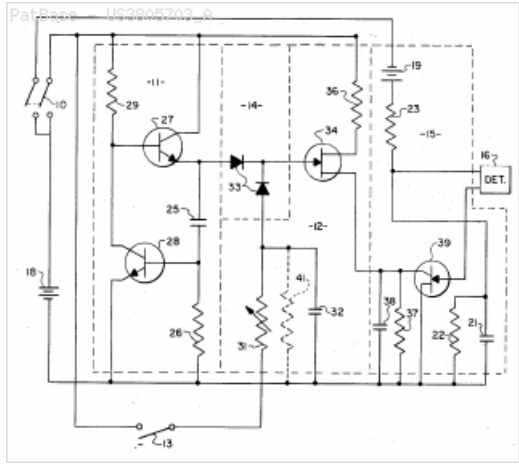
**4) Family number: 7720123 (US3805703A)**

© PatBase

**Title:** FUZE

**Abstract:** An ordnance fuse is provided for distinguishing interposed material, such as a forest canopy, from a true target; providing a firing signal at the latter and refraining from firing at the former. An electronic integrating comparator compares the time interval of contact with a target or canopy with a selected time interval and provides a firing signal when the contact time exceeds a threshold that distinguishes a true target from intervening material.  
**Classifications:**

**International (IPC 8-9):** F42C 11/06 (Advanced/Invention);  
F42C 11/00 (Core/Invention)  
**International (IPC 1-7):** F42C 11/02 F42C 11/06 F42C 15/40  
**CPC:** F42C 11/06  
**European:** F42C 11/06  
**US:** 102/215 102/220



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US3805703 A        | 19740423         | US19670663472      | 19670821         |

**Priority:**

US19670663472 19670821

**Probable Assignee:** ROCKWELL INTERNATIONAL CORP  
**Assignee(s):** (std): ROCKWELL INT CORP ; ROCKWELL INTERNATIONAL CORP  
**Assignee(s):** ROCKWELL INT CORP US  
**Inventor(s):** (std): CUMMINGS J  
**Inventor(s):** CUMMINGS J US

**5) Family number: 1438495 (GB1389360A)**

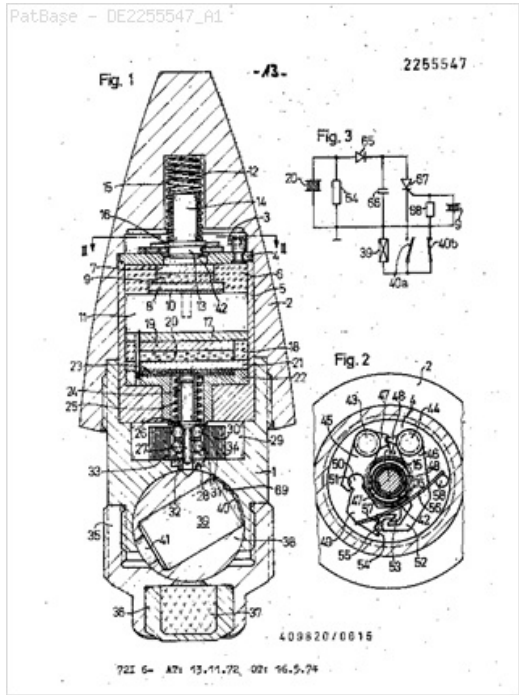
© PatBase

**Title:** ELECTRICAL PROJECTILE FUZE WITH SWITCH MEANS

**Abstract:** 1389360 Projectile fuzes DIEHL 23 Oct 1973 [13 Nov 1972] 49170/73 Heading F3A An electrical fuze for a projectile comprises a piezoelectric element 9, Fig. 1, which is activated on target impact or after a predetermined flight duration and triggers an electronic switch, e.g. a thyristor, to enable a capacitor to discharge through an armed electrical igniter 39. A spring-loaded striker 14 is provided to activate the piezoelectric element 9 after the predetermined flight duration. The striker is normally held in a retracted position by two pivoted, inter-engaging pincer arms 45, 46, Fig. 2. An articulated part 49 of the arm 45 is urged radially inwardly by a leaf-spring 56. However, its hooked end 53 is prevented from disengaging the hooked end of the arm 52 by the interposition of a cylinder 55. Centrifugal force causes the part 49 to move radially outwardly against the action of the spring 56 thereby releasing the cylinder 55 and enabling the hooked ends of the pincer arms to move into closer engagement. As the centrifugal force decreases, the part 49 is moved radially inwardly by the spring 56 until the hooked ends of the pincer arms become disengaged. Thereupon, the arms move outwardly under the action of the residual centrifugal force to release the striker. The centrifugal force also expands a spiral band 30, Fig. 1. This releases an electrical contact 27 which is moved by a spring 25 into abutment with a contact 40 of the igniter 39 that, meanwhile, has been moved into the armed position by a centrifugal rotor 38. The igniter is short-circuited in the unarmed position by engagement of the contact 40 with the fuze body 1. The capacitor for supplying current to the igniter is charged upon firing the projectile by an electromagnetic generator carried by the fuze; or by a piezoelectric element 20 which is compressed by an inertia plate 19; or alternatively is charged before firing by an external source of electrical energy.

**Classifications:**

**International (IPC 8-9):** F42C 11/02 F42C 15/40 (Advanced/Invention);  
F42C 11/00 F42C 15/00 (Core/Invention)  
**International (IPC 1-7):** F42C 11/00 F42C 11/02 F42C 11/04  
F42C 15/22 F42C 15/40 F42C 19/06  
**CPC:** F42C 11/02 F42C 15/40  
**European:** F42C 11/02 F42C 15/40



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CH571207 A         | 19751231         | CH19730015341      | 19731031         |
| DE2255547 A1       | 19740516         | DE19722255547      | 19721113         |
| DE2255547 B2       | 19790215         | DE19722255547      | 19721113         |
| DE2255547 C3       | 19791011         | DE19722255547      | 19721113         |
| GB1389360 A        | 19750403         | GB19730049170      | 19731023         |
| IT999311 A         | 19760220         | IT19730031116      | 19731109         |

**Priority:**

DE19722255547 19721113

**Probable Assignee:** DIEHL FA

**Assignee(s):** (std): DIEHL ; DIEHL FA ; DIEHL GMBH AND CO

**Assignee(s):** DIEHL GMBH AND CO 8500 NUERNBERG ; DITTA DIEHL ; FA DIEHL 8500 NUERNBERG ; DIEHL FIRMA

**Inventor(s):** (std): RUEDENAUER WERNER ; STUETZLE DIETMAR DR ING ; WEIDNER PETER F

**Inventor(s):** WEIDNER PETER F 8500 NUERNBERG ; STUETZLE DIETMAR DR ING 8560 LAUF ; RUEDENAUER WERNER 8542 ROTH

**6) Family number: 1438497** (GB1389359A)

© PatBase

**Title:** ELECTRICAL PROJECTILE FUZE WITH SAFETY MEANS

**Abstract:** 1389359 Projectile fuzes DIEHL 23 Oct 1973 [13 Nov 1972] 49169/73 Heading F3A An electrical fuze for a projectile comprises: a capacitor (not shown), which upon target impact or after a maximum flight duration discharges to ignite an ignition element 39 armable during the flight. The ignition current circuit includes a switch pin 24 which after the firing of the projectile and the expanding of a centrifugal coil 30 is pressed by a spring 25 against a contact 40 of the armed ignition element 39. The capacitor is charged upon firing the projectile by an electromagnetic generator or by a piezoelectric element 20 compressible by an inertia plate 19. The capacitor is discharged by the triggering of a thyristor with the voltage generated in a piezoelectric element 9 by target impact or by the action of a spring-loaded plunger 14 which is releasable by a plate 4 after expiry of the maximum flight time. The plate 4 is controlled by clockwork or is dependent upon the rotational speed of the projectile. The delayed firing of the ignition element is alternatively effected by the incorporation in the ignition circuit of an electronic delay or a bypass switch for the thyristor. The ignition element 39 is mounted in a centrifugal rotor 38 and is normally short-circuited by engagement of its contact 40 with the body 1 of the fuze.

**Classifications:**

**International (IPC 8-9):** F42C11/02 F42C15/40 (Advanced/Invention);

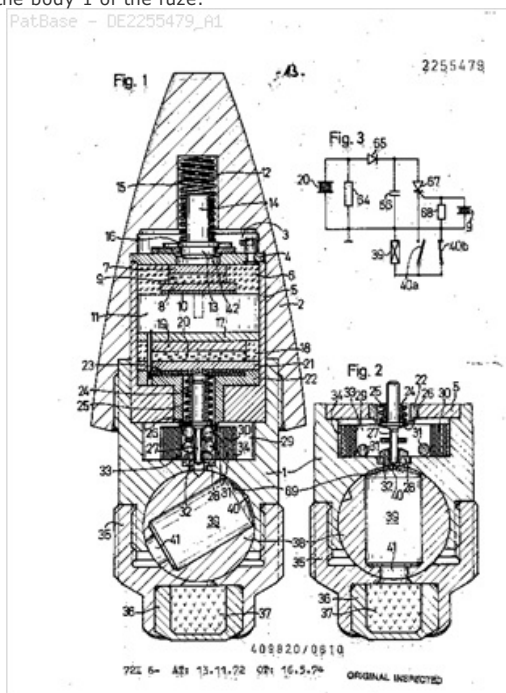
F42C11/00 F42C15/00 (Core/Invention)

**International (IPC 1-7):** F42C11/02 F42C11/04 F42C11/06

F42C15/22 F42C15/40

**CPC:** F42C11/02 F42C15/40

**European:** F42C11/02 F42C15/40



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CH571208 A         | 19751231         | CH19730015342      | 19731031         |
| DE2255479 A1       | 19740516         | DE19722255479      | 19721113         |
| DE2255479 B2       | 19780907         | DE19722255479      | 19721113         |
| GB1389359 A        | 19750403         | GB19730049169      | 19731023         |
| IT999312 A         | 19760220         | IT19730031118      | 19731109         |

**Priority:**

DE19722255479 19721113

**Probable Assignee:** DIEHL FA

**Assignee(s):** (std): DIEHL ; DIEHL FA

**Assignee(s):** DIEHL FIRMA ; DITTA DIEHL ; FA DIEHL 8500 NUERNBERG

**Inventor(s):** (std): RUEDENAUER WERNER ; STUETZLE DIETMAR DR ING ; WEIDNER PETER F ; WEIDNER PETER F ING GRAD

**Inventor(s):** WEIDNER PETER F ING GRAD 8500 NUERNBERG ; WEIDNER PETER F 8500 NUERNBERG ; STUETZLE DIETMAR DR ING 8560 LAUF ; RUEDENAUER WERNER 8542 ROTH

**Title:** AUFSCHLAGZUENDER

**Abstract:** Source: DE2310668A1 [DE] (Claim1) Aufschlagzuender, bei dem die zwischen der Zuend nadel und dem Detonator vorgesehene Zuendladung in einem Rotor untergebracht ist, der in derSicherstellung in eine unwirksame Lage verschwenkt und durch ein drallabhaengig loesbares Fliehglied verriegelt und der nach dem Loesen des Fliehgliedes - vornehmlich durch die Geschossrotation - in dieScharfstellung aufrichtbar ist, gekennzeichnet, durch ein den Rotor (4) zusaetzlich verriegelt haltendes, pyrotechnisches Sicherungselement (35, 36), welches beim Abschuss initiiert wird und erst nach erfolgtem Abbrand eines pyrotechni schen Satzes (35) des Sicherungselementes (36) eine am Rotor (4) angreifende Sperre freigibt.

**Machine translation:** (Claim1) Aufschlagzuender, which is between the ignition needle, and the detonator provided incendiary charge placed in a rotor, which in derSicherstellung in an ineffective position pivoted and locked by a drallabhaengig solvable Fliehglied and after releasing the Fliehgliedes - primarily through the basement rotation - in is dieScharfstellung erectile characterized by a rotor (4) additionally locked reserved, pyrotechnic fuse element (35, 36), which is initiated upon firing and only after the burn a pyrotechnic 'theorem (35) of the securing element (36) one release to the rotor (4) acting lock.

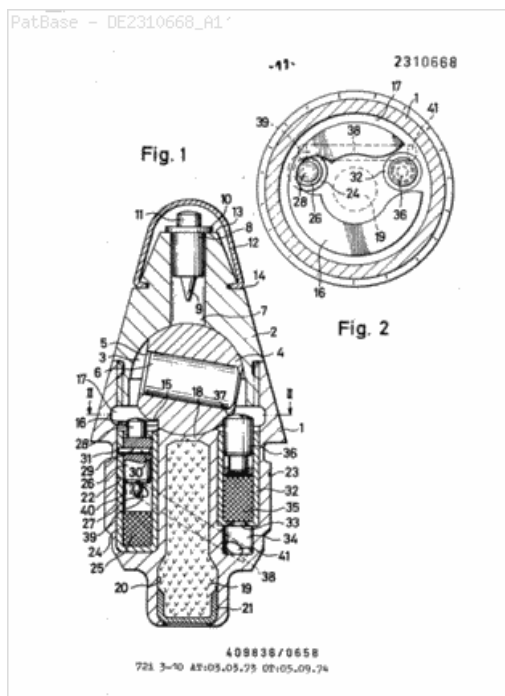
**Classifications:**

**International (IPC 8-9):** F42C 15/36 (Advanced/Invention);  
F42C 15/00 (Core/Invention)

**International (IPC 1-7):** F42C 15/26

**CPC:** F42C 15/36

**European:** F42C 15/36



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| DE2310668 A1       | 19740905         | DE19732310668      | 19730303         |

**Priority:**

DE19732310668 19730303

**Probable Assignee:** DIEHL FA

**Assignee(s):** (std): DIEHL FA

**Assignee(s):** FA DIEHL

**Inventor(s):** (std): HOFMANN GUENTHER ; RENTZSCH MAX

**8) Family number: 22688661 (GB1375691A)**

**Abstract:** 1375691 Fuze setting arrangement TELEFUNKEN PATENTVERWERTUNGS GmbH 23 Nov 1964 [21 March 1964] 47649/64 Heading F3A In a rocket or missile fuze setting arrangement, the fuze controller is coupled to the setting device by inductive or capacitive means or directly by wires. The controller is mounted with the fuze, and is expendable. The input setting signals are supplied before launching to the setting device by three rotary step switches which are adjusted externally so as to provide the required predetermined firing signal to the fuze primer at a desired time interval of the launching. The input signals are supplied in the form of a binary decimal code and are converted to a digital code, within the controller, prior to application to the control device. The use of a digital code facilitates the simple fabrication of the expendable control devices. The control device comprises a known digital counter which counts the pulses from a master clock. During the acceptance of the control signal, the control device counts upwards and then subsequently counts downwards, to the starting or primer firing signal, supervised by a master clock, in steps of 0A1 second. Conversion from the binary decimal code to the digital system is effected by a known form of switching matrix. Fault indication is provided at the setting device when no setting signal is developed after a complete setting sequence.

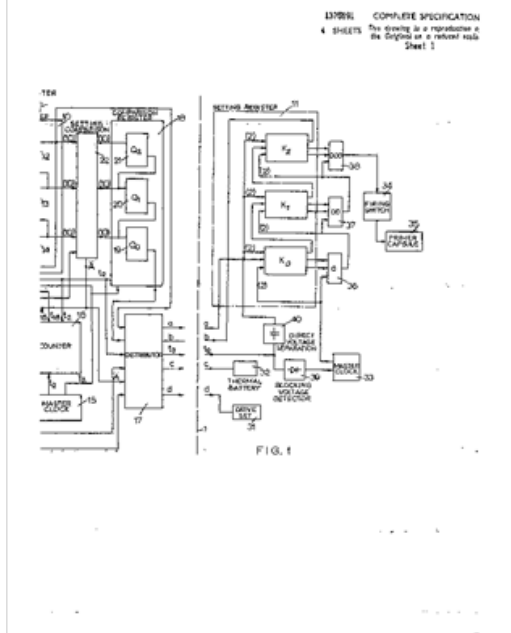
**Classifications:**

**International (IPC 8-9):** F42C 11/06 F42C 15/36  
G04G15/00 (Advanced/Invention);  
F42C 11/00 F42C 15/00 G04G15/00 (Core/Invention)

**International (IPC 1-7):** F42C 11/00 F42C 17/00

**CPC:** F42C 11/06 G04G15/003 F42C 15/36

**European:** F42C 11/06 F42C 15/36 G04G15/00B

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| DE977992 A         | 19741219         | DE19970007992      | 19640321         |
| DE977992 C         | 19741219         | DE19640977992      | 19640321         |
| DE978015 A         | 19750507         | DE19970008015      | 19651202         |
| DE978015 C         | 19750507         | DE19650978015      | 19651202         |
| FR1605376 A        | 19750228         | FR19650006248      | 19650219         |
| GB1375691 A        | 19741127         | GB19640047649      | 19641123         |
| IT984503 A         | 19741120         | IT19640026487      | 19641211         |

**Priority:**

DE1964T025872 19640321 DE19650978015 19651202 DE19970008015 19651202

**Probable Assignee:** TELEFUNKEN PATENT

**Assignee(s):** (std): TELEFUNKEN PATENT ; TELEFUNKEN PATENTVERWERTUNGSGES MBH

**9) Family number: 16521758 (DE7308205U)**

© PatBase

**Title:** AUFSCHLAGZUENDER IMPACT FUZE (Machine translation)

**Abstract:** Source: DE7308205U [DE] (Claim 1) 1. Aufschlagzuender, bei dem die zwischen der Zuend- nadel und dem Detonator vorgesehene Zuendladung in einem Rotor untergebracht ist, der in der Sicherstellung in eine unwirksame Lage verschwenkt und durch ein drallabhaengig loesbares Fliehglied verriegelt und der nach dem Loesen des Fliehgliedes - vornehmlich durch die Geschossrotation-in die Scharfstellung aufrichtbar ist, gekennzeichnet, durch ein den Rotor (4) zusaetzlich verriegelt haltendes, pyrotechnische Sicherungselement (35, 36), welches beim Abschuss initiiert wird und erst nach erfolgtem Abbrand eines pyrotechni- schen Satzes (35) des Sicherungselementes (36) eine am Rotor (4) angreifende Sperre freigibt. **Machine translation:** (Claim 1) 1. Impact fuze, additionally with which planned the primer between the igniting the needle is accommodated and the Detonator in a rotor, which swivels in the Sicherstellung into an ineffective situation and by a spin-dependently solvable fleeing member locked and which after the loosening of the fleeing member - primarily by Geschossrotation into focusing put upable is, characterized, by the rotor (4) locks fuse element holding and pyrotechnic (35, which is initiated with the firing and only after burn-up one pyrotechni schen set (35) of the fuse element (36) one at the rotor (4) attacking barrier releases.

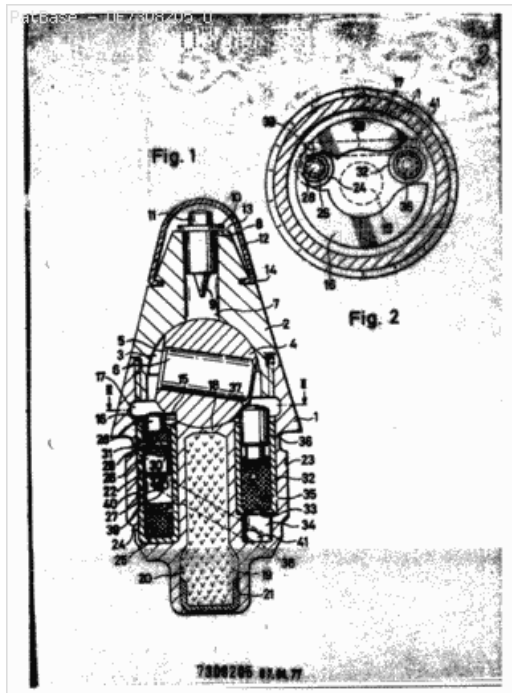
**Classifications:**

**International (IPC 8-9):** F42C 15/31 (Advanced/Invention);  
F42C 15/00 (Core/Invention)

**International (IPC 1-7):** F42C 15/26

**CPC:** F42C 15/31

**European:** F42C 15/31



#### Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| DE7308205 U        | 19770407         | DE19730008205U     | 19730303         |

#### Priority:

DE19730008205U 19730303

#### Probable Assignee:

DIEHL FA

#### Assignee(s): (std):

DIEHL FA

#### Assignee(s):

FA DIEHL 8500 NUERNBERG

#### 10) Family number: 1724516 (GB1581919A)

© PatBase

**Title:** UNIT LOAD CONTAINERS

**Abstract:** \*\*WARNING\*\* start of CLMS field may overlap end of DESC \*\*. at the input means. A more-elegant solution is to employ a solid state decoding and switching means in each setting cap such that only the cables 22-26 from the control means are required to be common to each setting cap.

#### Classifications:

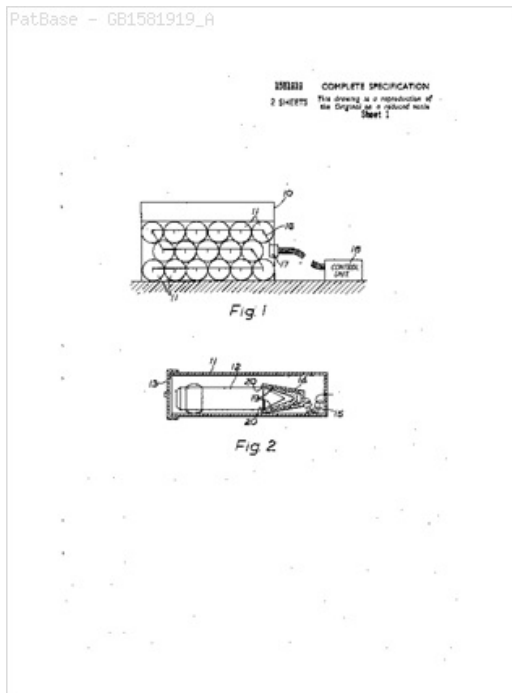
**International (IPC 8-9):** F42B39/00 F42C17/04 (Advanced/Invention);

F42B39/00 F42C17/00 (Core/Invention)

**International (IPC 1-7):** F42B37/02 F42C17/00

**CPC:** F42B39/00 F42C17/04

**European:** F42B39/00 F42C17/04



#### Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| DE2920853 A1       | 19791213         | DE19792920853      | 19790523         |
| GB1581919 A        | 19801231         | GB19780025486      | 19780531         |
| IT1116865 A        | 19860210         | IT19790049141      | 19790523         |

**Priority:**

GB19780025486 19780531

**Probable Assignee:** FERRANTI LTD**Assignee(s):** (std): FERRANTI LTD ; GRAN BRETAGNA**Assignee(s):** FERRANTI LIMITED ; FERRANTI LTD HOLLINWOOD LANCASHIRE GROSSBRITANNIE ; FERRANTI LTD HOLLINWOOD LANCASHIRE GROSSBRITANNIEN**Inventor(s):** (std): ALAN HARWOOD STARKIE ; STARKIE ALAN HARWOOD**Inventor(s):** STARKIE ALAN HARWOOD TODMORDEN LANCASHIRE GROSSBR ; STARKIE ALAN HARWOOD TODMORDEN LANCASHIRE GROSSBRITANNIEN**11) Family number: 1741804 (WO8000610A1)**

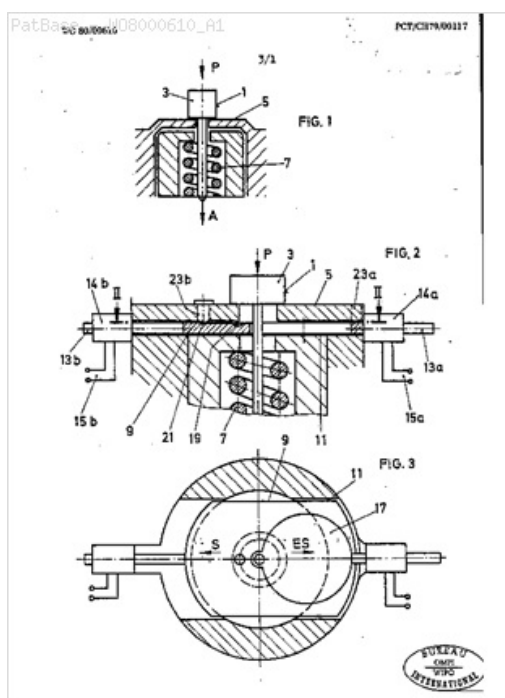
© PatBase

**Title:** DEVICE FOR LAYING AND REMOVING MINES ON A MINE FIELD

**Abstract:** The device allows a rapid mine laying and mine disposal of compartments of the terrain, the expressions mine laying and mine disposal being also applicable to nebulo-gen bodies and to those bodies producing a colored flash, an explosion, etc. The detonating bodies (36) are arranged onto a net-shape support (10) and are attached thereto. The net shape support (10) thus provided with detonating bodies (36) is unwound or wound from a vehicle (38). When the detonating bodies (36) are susceptible of being armed and disarmed electrically, they are controlled by means of electronic control lines provided onto the net-shaped support. Such a device is appropriate both for military applications, in which the detonating bodies are mines, and for various security police actions, in which alarm or barrier detonating bodies are used as well as petards producing gases or smoke.

**Classifications:****International (IPC 8-9):** F41H7/10 (Advanced/Invention);

F41H7/00 (Core/Invention)

**International (IPC 1-7):** F41H7/10 F42B23/00 F42C15/40 F42C7/02**CPC:** F41H11/14 F41H11/16 F41H7/10**European:** F41H7/10**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CH643353 A         | 19840530         | CH19800003681      | 19790904         |
| DE2839538 A1       | 19800313         | DE19782839538      | 19780912         |
| EP0020386 A1       | 19810107         | EP19790901039      | 19800409         |
| WO8000610 A1       | 19800403         | WO1979CH00117      | 19790904         |

**Priority:**

DE19782839538 19780912

WO1979CH00117 19790904

**Probable Assignee:** GUTZWILLER P**Assignee(s):** (std): GUTZWILLER P ; GUTZWILLER PETER MAX ; GUTZWILLER PETER MAX DR**Inventor(s):** (std): GUTZWILLER P ; GUTZWILLER PETER MAX ; GUTZWILLER PETER MAX DR**Inventor(s):** MAX DR GUTZWILLER PETER ; DR PETER MAX GUTZWILLER**Designated states:** AT BR CH DE FR GB JP LU NL SE SU US**12) Family number: 7832056 (US4215630A)**

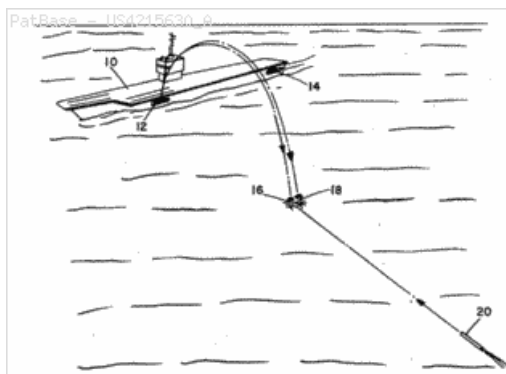
© PatBase

**Title:** Anti-ship torpedo defense missile

**Abstract:** A ship anti-torpedo defense system includes a detecting device for detecting and locating an incoming threat, such as a torpedo, and an interrelated missile launching and control system for firing at least one warhead carrying missile into the path of the oncoming threat, the missile having an active acoustic fuze system including a highly directional sensing system for continuously monitoring the position and proximity of the incoming threat and for detonating the warhead at the optimum proximity of the incoming threat with the missile. The missile floats at a predetermined depth determined by the predetermined depth of the torpedo to be intercepted.

**Classifications:****International (IPC 8-9):** B63G9/02 F41G5/20 F41G9/00 F42B22/04

F42C13/06 (Advanced/Invention);  
B63G9/00 F41G5/00 F41G9/00 F42B22/00 F42C13/00 (Core/Invention)  
**International (IPC 1-7):** F42B22/04  
**CPC:** B63G9/02 F41G5/20 F41G9/00 F42B22/04 F42C13/06  
**European:** B63G9/02 F41G5/20 F41G9/00 F42B22/04 F42C13/06  
**US:** 102/10 102/409 102/418 89/1.11 89/36.17



#### Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US4215630 A        | 19800805         | US19780883620      | 19780306         |

#### Priority:

US19780883620 19780306

**Probable Assignee:** GEN DYNAMICS CORP

**Assignee(s):** (std): GEN DYNAMICS CORP

**Assignee(s):** GENERAL DYNAMICS CORP ; HUGHES MISSILE SYSTEMS CO

**Inventor(s):** (std): LOBITZ WALTER A ; HAGELBERG ALLEN C

### 13) Family number: 8463370 (US4309946A)

© PatBase

**Title:** Laser proximity fuzing device

**Abstract:** Broadly, the disclosure is directed to a range-measuring detonating system comprising an air-driven scanning mirror which cooperates with fixed mirrors to project the output of a laser toward a target, the laser being modulated at a given frequency by a local oscillator and modulator circuit. Adjacent the laser is a detecting means which feeds a receiver, the receiver output being in turn delivered to a detector which feeds a phase comparator to which is also applied the output of the local oscillator. The phase comparator output is coupled to an AND circuit to which is also applied the output of the detector. When the light energy returned by a target in the vicinity of the system achieves a given phase and amplitude, the phase comparator output is gated through the AND circuit to ignite a squib, booster and warhead.

#### Classifications:

**International (IPC 8-9):** F42C13/02 G01S17/36 (Advanced/Invention);

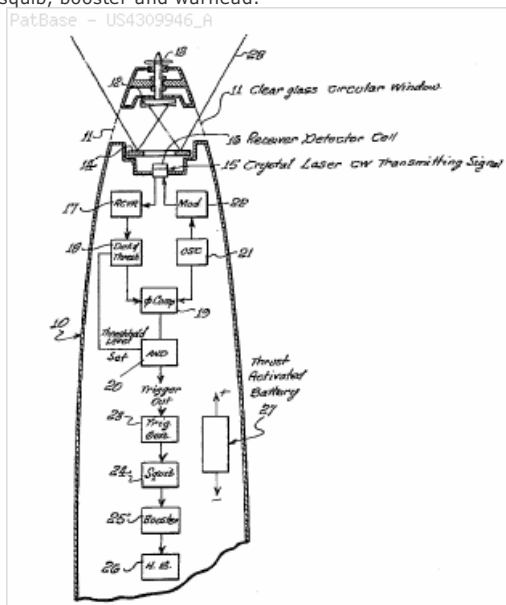
F42C13/00 G01S17/00 (Core/Invention)

**International (IPC 1-7):** F42C13/02

**CPC:** F42C13/023 G01S17/36

**European:** F42C13/02A G01S17/36

**US:** 102/213



#### Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US4309946 A        | 19820112         | US19670653249      | 19670713         |

#### Priority:

US19670653249 19670713

**Probable Assignee:** GEN DYNAMICS POMONA DIV

**Assignee(s):** (std): GEN DYNAMICS POMONA DIV ; GEN DYNAMICS POMONA DIVISION

**Assignee(s):** GENERAL DYNAMICS POMONA DIVISION ; HUGHES MISSILE SYSTEMS CO

**Inventor(s):** (std): BLOCK KENNETH A

### 14) Family number: 3549623 (DE3311620A1)

© PatBase

**Title:** Method for delaying the initiation of an ignition circuit

**Abstract:** The invention relates to a method for delaying the initiation of an ignition circuit, with the result that carrier aircraft are protected from the sheath of splinters of their air-to-air missiles travelling a curved trajectory.

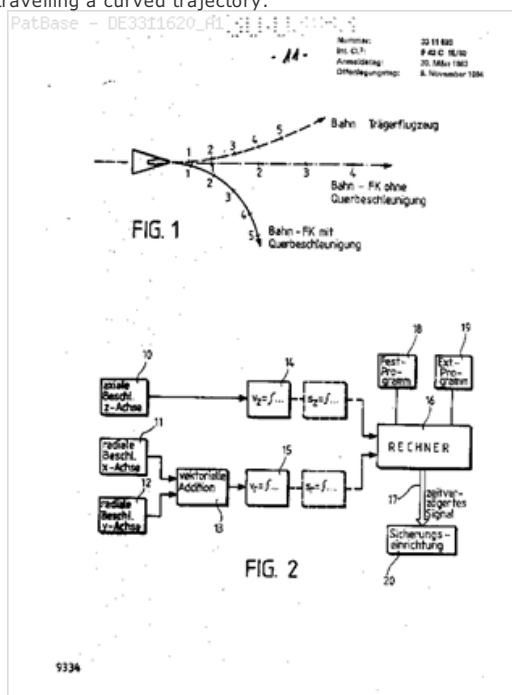
**Classifications:**

**International (IPC 8-9):** F42C 15/40 (Advanced/Invention);  
F42C 15/00 (Core/Invention)

**International (IPC 1-7):** F42C 15/40

**CPC:** F42C 15/40

**European:** F42C 15/40



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| DE3311620 A1       | 19841108         | DE19833311620      | 19830330         |
| DE3311620 C2       | 19850620         | DE19833311620      | 19830330         |

**Priority:**

DE19833311620 19830330

**Probable Assignee:** MESSERSCHMITT BOELKOW BLOHM

**Assignee(s):** (std): MESSERSCHMITT BOELKOW BLOHM

**Assignee(s):** MESSERSCHMITT BOELKOW BLOHM GMBH ; MESSERSCHMITT BOELKOW BLOHM GMBH 8012 OTTOBRUNN DE

**Inventor(s):** (std): HELD MANFRED DIPL PHYS DR

**Inventor(s):** HELD MANFRED DIPL PHYS DR 8899 ARESING DE

**15) Family number: 4537960 (DE3414688A1)**

© PatBase

**Title:** Marking device for mines

**Abstract:** The mine consists of an active body (1) whose upwardly pointing surface is a signalling surface (3) which is coated with a signalling paint or the like. The signalling surface (3) is normally covered by the cover (2), which also contains the detonator (4). Once the active time of the mine which is being set has elapsed, not only is the detonator (4) rendered inoperative, but the cover (2) is also ejected from the active body (1) via an activator (6). In consequence, the signalling surfaces (3) on the upper end wall of the active body (1) and the lower end wall of the cover (2) are exposed, so that the active body can easily be identified to be safe again and can be picked up.

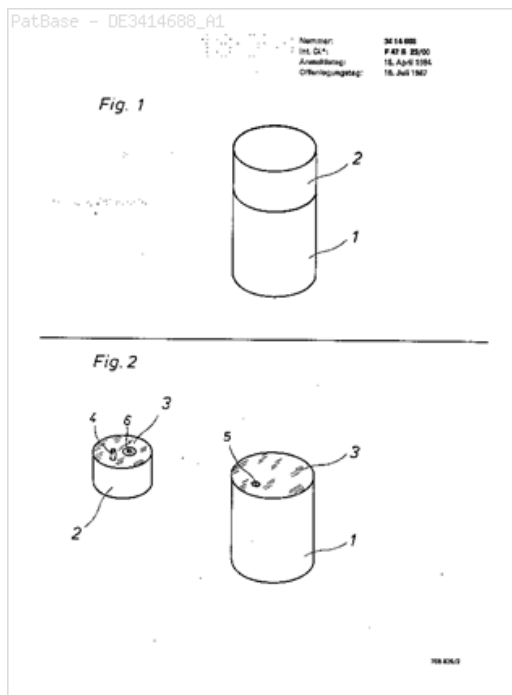
**Classifications:**

**International (IPC 8-9):** F42B23/24 (Advanced/Invention);  
F42B23/00 (Core/Invention)

**International (IPC 1-7):** F42B23/00 F42C 14/08

**CPC:** F42B23/24

**European:** F42B23/24



#### Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| DE3414688 A1       | 19870716         | DE19843414688      | 19840418         |
| DE3414688 C2       | 19940601         | DE19843414688      | 19840418         |

#### Priority:

DE19843414688 19840418

**Probable Assignee:** DYNAMIT NOBEL AG

**Assignee(s):** (std): DYNAMIT NOBEL AG

**Assignee(s):** DYNAMIT NOBEL AG 53840 TROISDORF

**Inventor(s):** (std): MENNE ROLF DIPL ING ; SCHAEFER HEINZ DIPL ING

**Inventor(s):** SCHAEFER HEINZ DIPL ING 5276 WIEHL ; MENNE ROLF DIPL ING 5064 ROESRATH ; HEINZ DIPL ING SCHAEFER

#### 16) Family number: 3016838 (US4836107A)

© PatBase

#### Title: ARRANGEMENT OF MODULAR SUBASSEMBLIES

**Abstract:** An arrangement of modular supporting structure or subassemblies constituted of interconnected circuit boards, especially for the assembly of a complex processing circuit in articles of ammunition possessing a search fuze or in airborne target-tracking bodies. The structures or modular subassemblies of the type considered herein consist of circuit boards arranged in a succession, in which between respectively two adjacent circuit boards, there are formed a series of optronic intersecting connections between coupling elements, wherein in the operational positioning of the circuit boards, a transmitting diode and a receiving detector are arranged opposite each other, which are connected with a multiplexer or, respectively, a demultiplexer.

#### Classifications:

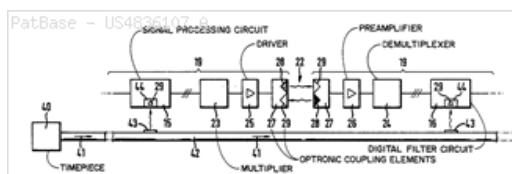
**International (IPC 8-9):** F41G7/22 F42C19/12 G02B6/42 G02B6/43 G08C19/36 H01R13/66 H04B10/00 H04B10/80 H04M1/02 H05K1/14 H05K3/36 H05K7/14 (Advanced/Invention); F41G7/20 F42C19/00 G02B6/42 G02B6/43 G08C19/36 H01R13/66 H04B10/00 H04M1/02 H05K1/14 H05K3/36 H05K7/14 (Core/Invention)

**International (IPC 1-7):** F41G7/22 F42C13/04 F42C19/06 G02B6/42 G08C19/36 H01R13/66 H01R23/68 H04B10/00 H04B10/20 H04B9/00 H04L25/26 H05K1/14 H05K7/14

**CPC:** G02B6/4245 G02B6/428 G02B6/4287 H04B10/803 F41G7/22 G02B6/4295 G02B6/43 H01R12/52 H05K1/144

**European:** F41G7/22 G02B6/42F G02B6/43 H01R9/09F H04B10/00I H04B10/803 H05K1/14D

**US:** 102/206 102/293 361/413 361/785 439/50



#### Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| DE3640099 A1       | 19880601         | DE19863640099      | 19861124         |
| DE3640099 C2       | 19920521         | DE19863640099      | 19861124         |
| FR2607346 A1       | 19880527         | FR19870015927      | 19871118         |
| GB2199714 A1       | 19880713         | GB19870027389      | 19871123         |
| GB2199714 B2       | 19910626         | GB19870027389      | 19871123         |
| GB8727389 A0       | 19871223         | GB19870027389      | 19871123         |
| US4836107 A        | 19890606         | US19870116046      | 19871102         |

#### Priority:

DE19863640099 19861124

**Probable Assignee:** DIEHL GMBH AND CO

**Assignee(s):** (std): DIEHL GMBH AND CO

**Assignee(s):** DIEHL GMBH AND CO 8500 NUERNBERG DE ; DIEHL GMBH CO ; DIEHL GMBH

**Inventor(s):** (std): LANG BERNHARD ; SELTERS MATTHIAS ; SELTERS MATTHIAS DR ; SELTERS DR MATTHIAS  
**Inventor(s):** SELTERS MATTHIAS DR 8501 RUECKERSDORF DE ; LANG BERNHARD 8501 FEUCHT DE ; MATTHIAS SELTERS ; BERNHARD LANG ; DR MATTHIAS SELTERS

**17) Family number: 7937029 (DE3936807C1)** © PatBase

**Title:** Anti-tank mine detonator - with electro-mechanical timer allowing external timing adjustment

**Abstract:** A detonator for an anti-tank mine, includes a time adjustment device. The latter consists of a mechanical unit and an electrical control unit. An arresting lever is arranged so that it can be rotated, and the time mechanism has at least two positions and a final position. Once the lever has been placed in the final position the chosen detonation time can be externally programmed. ADVANTAGE - The detonator is efficient and reliable and can be primed quickly and automatically.

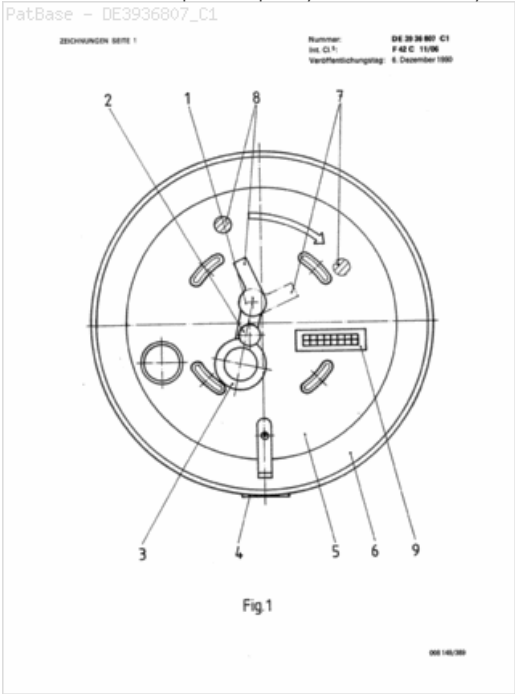
**Classifications:**

**International (IPC 8-9):** F42C 17/04 (Advanced/Invention);  
F42C 17/00 (Core/Invention)

**International (IPC 1-7):** F42C 11/06

**CPC:** F42C 17/04

**European:** F42C 17/04



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| DE3936807 C1       | 19901206         | DE19893936807      | 19891104         |

**Priority:**

DE19893936807 19891104

**Probable Assignee:** BUNDESREPUBLIK DEUTSCHLAND VERTRETEN DURCH DEN BUNDESMINISTER DER VERTEIDIGUNG  
DIESER VERTRETEN DURCH DEN PRAESIDENTEN DES BUNDESAMTES FUER WEHRTECHNIK UND  
BESCHAFFUNG 5400 KOBLENZ DE

**Assignee(s):** BUNDESREPUBLIK DEUTSCHLAND VERTRETEN DURCH DEN BUN ; BUNDESREPUBLIK DEUTSCHLAND  
VERTRETEN DURCH DEN BUNDESMINISTER DER VERTEIDIGUNG DIESER VERTRETEN DURCH DEN  
PRAESIDENTEN DES BUNDESAMTES FUER WEHRTECHNIK UND BESCHAFFUNG 5400 KOBLENZ DE

**Inventor(s):** WIESER HELMUT 5414 VALLENDAR DE

**18) Family number: 15734868 (US6314887B)** © PatBase

**Title:** Microelectromechanical systems (MEMS)-type high-capacity inertial-switching device

**Abstract:** Various ultra-miniature, monolithic inertial switching (G-switch) devices used in safety and arming (S and A) devices for projected munitions, which operate in accordance with a shuttle member (50), which effectuates current switching of around an ampere of current when subjected to a threshold inertial loading (for example, an impact or gun launch of a projection munition). The embodiments of the invention can be a passive threshold G-switch with or without switch enable and arming capability. The embodiments (100, 200) of the invention use either mechanical or electromechanical switch enable functioning and can optionally include a shuttle time-delay feature (54). Both embodiments can incorporate various designs for a switching assembly (75) such as latching single-throw switch having the configurations of either a normally-open, double pole, single-throw switch or a normally-open, single pole, single-throw switch, wherein switch closing occurs when the shuttle member (50) experiences inertial loading and penetrates the switching assembly (75).

**Classifications:**

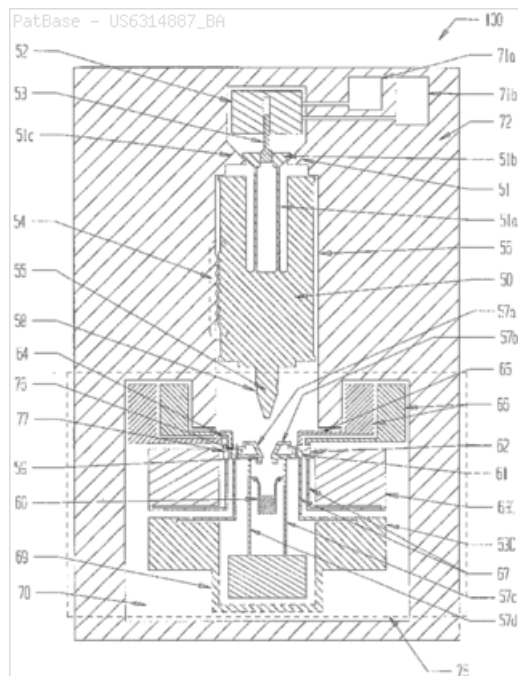
**International (IPC 8-9):** F42C 15/24 F42C 19/06 (Advanced/Invention);  
H01H1/00 H01H35/14 (Advanced/Non-invention)

**International (IPC 1-7):** F24C 15/24 F42C 15/40

**CPC:** F42C 15/24 H01H1/0036 H01H35/14 H01H2001/0047 F42C 19/06

**European:** F42C 15/24 F42C 19/06 T01H1/00M T01H1/00M1A  
T01H35/14

**US:** 102/251 102/262



#### Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US6314887 BA       | 20011113         | US20000556989      | 20000424         |
| US6321654 BA       | 20011127         | US20000560527      | 20000424         |

#### Priority:

US20000184137P 20000222 US20000556989 20000424 US20000560527 20000424

**Probable Assignee:** US ARMY

**Assignee(s):** (std): US ARMY

**Assignee(s):** ARMY US GOV AS REPRESENTED BY SECRETARY OF ; ARMY US GOV REPRESENTED BY SECRETARY OF AS ; ARMY US GOV REPRESENTED BY SECRETARY OF US ARMY T ; THE UNITED STATES OF AMERICA AS REPRESENTED BY THE ; THE UNITED STATES OF AMERICA AS REPRESENTED BY THE SECRETARY OF THE ARMY

**Inventor(s):** (std): ROBINSON CHARLES H

#### 19) Family number: 32658073 (US2006042494A)

© PatBase

**Title:** FUZE WITH ELECTRONIC STERILIZATION

**Abstract:** A fuze may include a detonator, a firing capacitor and a control circuit. The firing capacitor may be charged to a nominal operational voltage, wherein when the firing capacitor is discharged across the detonator, an external explosive charge may be detonated. The firing capacitor may also be charged to a sterilization voltage, wherein when the firing capacitor is discharged across the detonator, the detonator may be destroyed without causing detonation of an external explosive charge. When the detonator is destroyed, the sterilized fuze is unable to trigger detonation of an external explosive charge.

#### Classifications:

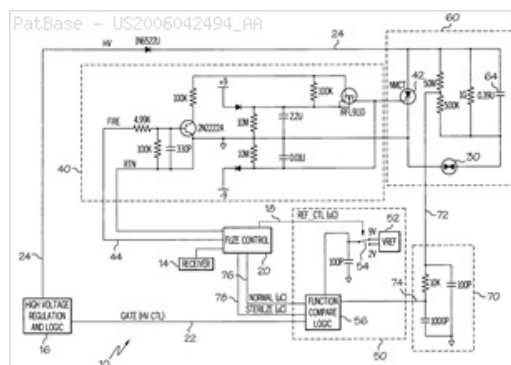
**International (IPC 8-9):** F42B3/18 F42C19/00 (Advanced/Invention);

F42B3/00 F42C19/00 (Core/Invention)

**CPC:** F42B3/18

**European:** F42B3/18

**US:** 102/202.1 102/202.7 102/206 102/215 102/218



#### Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US2006042494 AA    | 20060302         | US20040929931      | 20040830         |
| US7334523 BB       | 20080226         | US20040929931      | 20040830         |

#### Priority:

US20040929931 20040830

**Probable Assignee:** ALLIANT TECHSYSTEMS INC

**Assignee(s):** (std): KURSCHNER DENNIS L ; LUCAS JAMES D ; ALLIANT TECHSYSTEMS INC

**Assignee(s):** BANK OF AMERICA NA ; ORBITAL ATK INC ; WELLS FARGO BANK NATIONAL ASSOCIATION ADMINISTRATIVE AGENT AS

**Inventor(s):** (std): LUCAS JAMES D ; KURSCHNER DENNIS L

**Inventor(s):** LUCAS JAMES ; KURSCHNER DENNIS  
**Agent(s):** VIDAS ARRETT AND STEINKRAUS PA

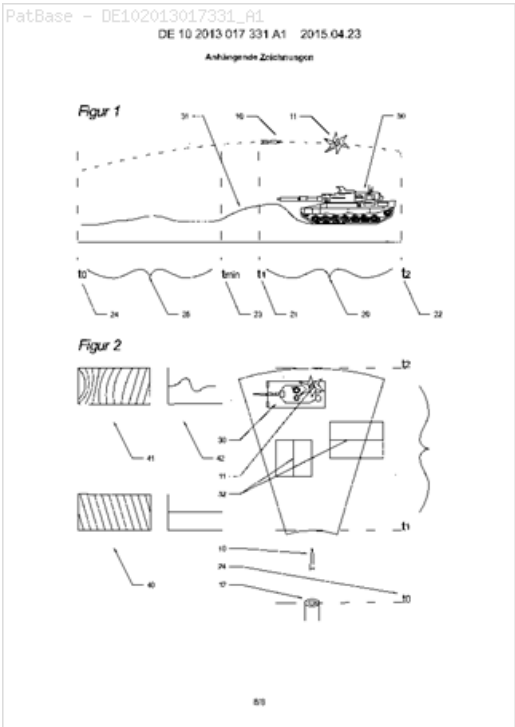
**20) Family number: 59064459 (DE102013017331A1)**

© PatBase

**Title:** VERFAHREN ZUR INITIIERUNG EINER WIRKLADUNG EINES SPRENGGESCHOSSES UND ZUENDER HIERZU METHOD FOR INITIATING A MORE CHARGE OF BLASTING AND PROJECTILE IN THIS REGARD igniter (Machine translation)

**Abstract:** Source: DE102013017331A1 [DE] Es wird vorgestellt ein Verfahren zur Initiierung einer Wirkladung eines Sprenggeschosses mit einem Luftsprengpunkt sowie ein Zuender dieses Sprenggeschosses. Ein Zuender der Wirkladung wird bei Verschuss mit einem vorbestimmten Zuendzeitfenster auf einer Logikeinheit des Zuenders programmiert, wobei das Zuendzeitfenster zwischen einer ersten Geschossflugzeit t1 und einer zweiten Geschossflugzeit t2 liegt. Der Zuender wird durch Erreichen der ersten Geschossflugzeit t1 entsichert. Ein Zuendsensor des Zuenders wird aktiviert, wobei der Zuendsensor ein Magnetsensor ist, der ein Erdmagnetfeld misst, der Abweichungen zum Erdmagnetfeld sensiert, und ein Abweichungssignal an den Zuender sendet. Der Zuender initiiert die Wirkladung durch den Erhalt eines Abweichungssignals innerhalb des Zuendzeitfensters. Alternativ initiiert der Zuender die Wirkladung durch das Erreichen der zweiten Geschossflugzeit t2. **Machine translation:** Is presented a method for initiating an explosive charge of an explosive projectile with an air blasting spot as well as an igniter of this explosive projectile. An ignitor of the effective charge is programmed with firing of a predetermined Zuendzeitfenster on a logical unit of the igniter, said Zuendzeitfenster between a first projectile flight time t1 and a second projectile flight time t2 is. The ignitor is unlocked by reaching the first projectile flight time t1. An ignition sensor of the igniter is activated, the ignition sensor is a magnetic sensor, which measures a geomagnetic field, the sensed deviations to the earth's magnetic field, and sends a deviation signal to the igniter. The ignitor initiates the explosive charge by obtaining a differential signal within the Zuendzeitfensters. Alternatively, the ignitor initiates the explosive charge by reaching the second floor flight time t2.

**Classifications:**  
**International (IPC 8-9):** F42C 11/06 (Advanced/Invention)  
**CPC:** F42C 15/00 F42C 9/16 F42C 11/065 F42C 13/08



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| DE102013017331 A1  | 20150423         | DE201310017331     | 20131017         |

**Priority:**

DE201310017331 20131017

**Probable Assignee:** BUNDESREP DEUTSCHLAND

**Assignee(s):** (std): BUNDESREP DEUTSCHLAND

**Assignee(s):** BUNDESREPUBLIK DEUTSCHLAND VERTRETEN DURCH DAS BMVG VERTRETEN DURCH DAS BUNDESAMT F AUSRUESTUNG INFORMATIONSTECHNIK U NUTZUNG DER BUNDESWEHR

**Inventor(s):** (std): GRAESER STEPHAN

**21) Family number: 61768074 (CN105371713A)**

© PatBase

**Title:** PARTITION-TYPE MICRO-ELECTROMECHANICAL SYSTEM (MEMS) FUZE

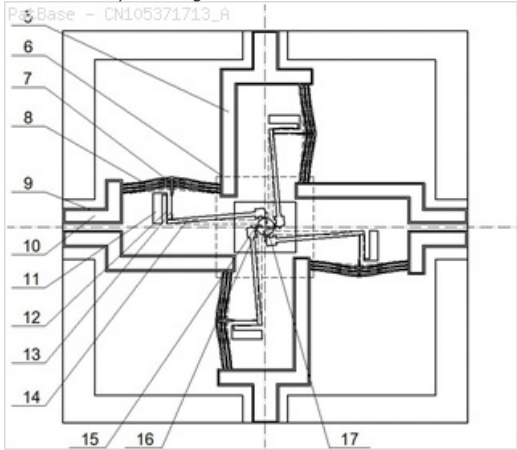
**Abstract:** A partition-type micro-electromechanical system (MEMS) fuze comprises a chemical layer. The upper portion of the chemical layer is connected with a chemical covering plate layer in a bonding mode. The lower portion of the chemical layer is connected with the upper portion of a security device layer in a bonding mode. The lower portion of the security device layer adheres to an acceleration chamber layer. The security device layer comprises a silicon substrate layer, and a silicon dioxide layer and a movable silicon structural layer are sequentially made on the silicon substrate layer. Four groups of drivers are made in the movable silicon layer. A left metal electrode and a right metal electrode of each group of drivers are made on a left anchoring point and a right anchoring point respectively. The two ends of V-type thermoelectric executors arranged in an array are connected with the left anchoring point and the right anchoring point respectively. The head end of each lever is connected with a middle arm through a right flexible beam. A lower anchoring point is connected with the head end of each lever through a left flexible beam. A partition plate is located at the tail end of each lever and provided with an interlocking groove and an interlocking tooth which achieve interlocking with the interlocking tooth and the interlocking

groove of the corresponding adjacent partition plate. The MEMS technology is introduced to the fuze, and the partition-type MEMS fuze has the characteristics of being low in cost, high in intelligence and easy to integrate.

**Classifications:**

**International (IPC 8-9):** F42C 15/00 (Advanced/Invention)

**CPC:** F42C 15/00



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CN105371713 A      | 20160302         | CN201510790210     | 20151117         |
| CN105371713 B      | 20170301         | CN201510790210     | 20151117         |

**Priority:**

CN201510790210 20151117

**Probable Assignee:** XI AN JIAOTONG UNIV

**Assignee(s):** (std): XI AN JIAOTONG UNIV

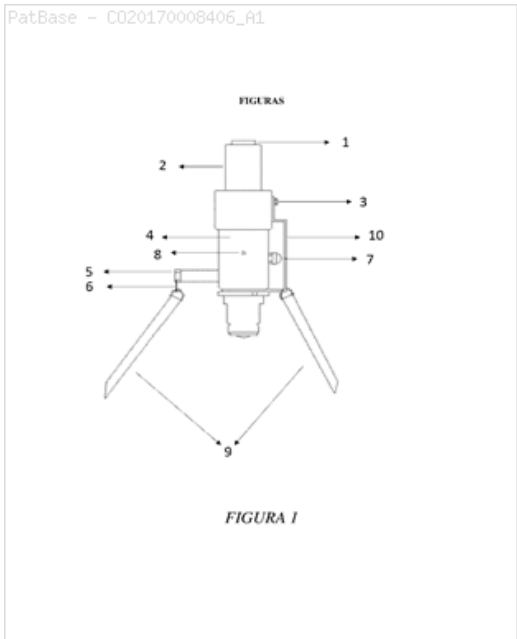
**Inventor(s):** (std): BAI YINGWEI ; HU TENGJIANG ; LI XIUYUAN ; ZHAO YULONG

**22) Family number: 67287381 (CO20170008406A)** © PatBase

**Title:** ESPOLETA ELECTROMECANICA DE PERCUSION PARA MUNICION AEREA MULTIPROPOSITO Electromechanical FUZE FOR MULTIPURPOSE AIR ammunition percussion (Machine translation)

**Classifications:**

**International (IPC 8-9):** F42C 15/00 (Advanced/Invention)



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CO20170008406 A1   | 20170920         | CO20170008406      | 20170817         |

**Priority:**

CO20170008406 20170817

**Probable Assignee:** LUIS EDUARDO TOBON TRUJILLO

**Assignee(s):** LUIS EDUARDO TOBON TRUJILLO

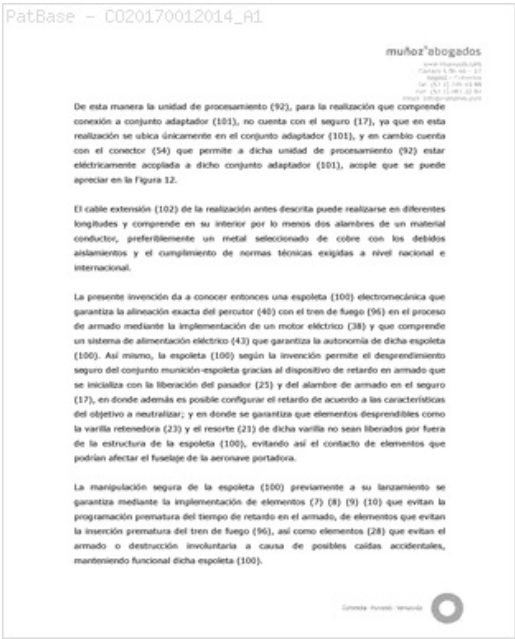
**Inventor(s):** LUIS EDUARDO TOBON TRUJILLO

**Agent(s):** HASBLEYDI LIZBETH CALVO ROJAS

**23) Family number: 68203601 (CO20170012014A)** © PatBase

**Title:** ESPOLETA ELECTROMECHANICA PARA BOMBA AEREA CON SELECCION DE RETARDO EN ARMADO Y DISPOSITIVOS DE SEGURIDAD PRE-LANZAMIENTO Electromechanical FUZE FOR SELECTION OF AERIAL BOMB DELAY IN ARMED AND SECURITY DEVICES PRE-RELEASE (Machine translation)

**Classifications:**  
**International (IPC 8-9):** F42C 1/00 F42C 5/00 (Advanced/Invention)



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CO20170012014 A1   | 20171215         | CO20170012014      | 20171127         |

**Priority:**

CO20170012014 20171127

**Probable Assignee:** INDUSTRIA MILITAR INDUMIL

**Assignee(s):** INDUSTRIA MILITAR INDUMIL

**Inventor(s):** CESAR AUGUSTO PUERTO NINO ; DANIEL GUILLERMO ACERO PENA ; LUIS ENRIQUE CONTRERAS AYALA ; LUIS GABRIEL GOMEZ RODRIGUEZ

**Agent(s):** LOLA KANDELAFT