SECTION F — MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING

F42 AMMUNITION; BLASTING

F42B EXPLOSIVE CHARGES, e.g. FOR BLASTING; FIREWORKS; AMMUNITION (explosive compositions C06B; fuzes F42C; blasting F42D) **[2, 5]**

Subclass index

CHARGES CHARACTERISED BY THE FORM....1/00
BLASTING CARTRIDGES....3/00
Initiators....3/10
FIREWORKS....4/00
CARTRIDGE AMMUNITION....5/00
PROJECTILES FOR BLOWGUNS, BOWS, SPRING OR AIR GUNS....6/00
SHOTGUN AMMUNITION....7/00
TRAINING AMMUNITION....8/00
STEERING, STABILISING OR RETARDING OF AMMUNITION....10/00
AMMUNITION CHARACTERISED BY WARHEAD, INTENDED EFFECT OR MATERIAL....12/00
GUIDING OR SEALING AMMUNITION IN BARRELS, LUBRICATING OR CLEANING BARRELS BY AMMUNITION....14/00
TYPES OF AMMUNITION
Warhead types....12/00
Self-propelled projectiles or missiles, rocket torpedoes, marine torpedoes....15/00-19/00
Depth charges....21/00
Marine mines....22/00
Land mines....23/00
Fall bombs....25/00
Hand grenades....27/00
Noiseless, smokeless or flashless projectiles....29/00
Bullets, rifle grenades, ordnance projectiles, harpoons....30/00
MANUFACTURING OR DISMANTLING OF AMMUNITION....33/00
TESTING OR CHECKING OF AMMUNITION....35/00
PACKAGING OR STORAGE OF AMMUNITION OR EXPLOSIVE CHARGES, SAFETY FEATURES THEREOF....39/00
SUBJECT MATTER NOT PROVIDED FOR IN OTHER GROUPS OF THIS SUBCLASS....99/00

1/00 Explosive charges characterised by form or shape but not dependent on shape of container [1, 2006.01]

1/02 • Shaped or hollow charges (blasting cartridges with cavities in the charge F42B 3/08; oil-winning using shaped-charge perforators E21B 43/116) **[1, 2006.01]**

1/024 • • provided with embedded bodies of inert material **[5, 2006.01]**

1/028 • • characterised by the form of the liner **[5, 2006.01]**

1/032 • • characterised by the material of the liner **[5, 2006.01]**

1/036 • • Manufacturing processes therefor **[5, 2006.01]**

1/04 • Detonator charges not forming part of the fuze **[1, 2006.01]**

3/00 Blasting cartridges, i.e. case and explosive (fuse cords, e.g. detonating fuse cords, C06C 5/00; chemical aspects of detonators, blasting caps or primers C06C 7/00) **[1, 2006.01]**

3/02 • adapted to be united into assemblies **[1, 2006.01]**

3/04 • for producing gas under pressure **[1, 2006.01]**

3/06 • • with re-utilisable case **[1, 2006.01]**

3/08 • with cavities in the charge, e.g. hollow-charge blasting cartridges **[1, 2006.01]**

3/087 • Flexible or deformable blasting cartridges, e.g. bags or hoses (loaded cartridge bags F42B 5/38) **[5, 2006.01]**

3/093 • • in mat or tape form **[5, 2006.01]**

3/10 • Initiators therefor (percussion fuzes F42C 7/00; percussion caps F42C 19/10; electric primers F42C 19/12) **[1, 2006.01]**

Note(s)

Group F42B 3/18 takes precedence over groups F42B 3/103-F42B 3/16.

3/103 • • Mounting initiator heads in initiators; Sealing-plugs **[5, 2006.01]**

3/107 • • • Sealing-plugs characterised by the material used **[5, 2006.01]**

3/11 • • characterised by the material used, e.g. for initiator case or electric leads (F42B 3/107 takes precedence) **[5, 2006.01]**

3/113 • • activated by optical means, e.g. laser, flashlight **[5, 2006.01]**
3/117 • • activated by friction **[5, 2006.01]**
3/12 • • Bridge initiators **[1, 2006.01]**
3/13 • • • with semiconductive bridge **[5, 2006.01]**
3/14 • • Spark initiators **[1, 2006.01]**
3/16 • • Delay initiators **[1, 2006.01]**
3/18 • • Safety initiators resistant to premature firing by static electricity or stray currents **[1, 2006.01]**
3/182 • • • having shunting means **[5, 2006.01]**
3/185 • • • having semiconductive sealing plugs **[5, 2006.01]**
3/188 • • • having radio-frequency filters **[5, 2006.01]**
3/192 • • designed for neutralisation on contact with water **[5, 2006.01]**
3/195 • • Manufacture **[5, 2006.01]**
3/198 • • • of electric initiator heads **[5, 2006.01]**
3/22 • Elements for controlling or guiding the detonation wave, e.g. tubes (using inert bodies embedded in shaped or hollow charges F42B 1/024) **[5, 2006.01]**
3/24 • Cartridge closures or seals (top closures for shotgun ammunition cartridges F42B 7/12) **[5, 2006.01]**
3/26 • Arrangements for mounting initiators; Accessories therefor, e.g. tools **[5, 2006.01]**
3/28 • Cartridge cases characterised by the material used, e.g. coatings (for initiator cases F42B 3/11) **[5, 2006.01]**

4/00 Fireworks, i.e. pyrotechnic devices for amusement, display, illumination, or signal purposes (signalling by explosives G08B; advertising by firework G09F 13/46) **[2, 2006.01]**
4/02 • in cartridge form, i.e. shell, propellant, and primer **[2, 2006.01]**
4/04 • Firecrackers **[2, 2006.01]**
4/06 • Aerial display rockets (rockets in general F42B 15/00) **[2, 2006.01]**
4/08 • • characterised by having vanes, wings, parachutes, or balloons **[2, 2006.01]**
4/10 • • characterised by having means to separate article or charge from casing without destroying casing **[2, 2006.01]**
4/12 • • • Parachute or flare separation **[2, 2006.01]**
4/14 • • characterised by having plural successively-ignited charges **[2, 2006.01]**
4/16 • Hand-thrown impact-exploded noise makers (cap pistols F41C 3/06) **[4, 2006.01]**
4/18 • Simulations, e.g. pine cone, house that is destroyed, warship, volcano **[2, 2006.01]**
4/20 • characterised by having holder or support other than casing, e.g. whirler or spike support **[2, 2006.01]**
4/22 • characterised by having means to separate an article or charge from casing without destroying casing (in aerial display rockets F42B 4/10) **[2, 2006.01]**
4/24 • characterised by having plural successively-ignited charges (in aerial display rockets F42B 4/14) **[2, 2006.01]**
4/26 • Flares; Torches **[2, 2006.01]**
4/28 • • Parachute flares (F42B 4/12 takes precedence) **[2, 2006.01]**
4/30 • Manufacture **[2, 2006.01]**

5/00 Cartridge ammunition, e.g. separately-loaded propellant charges (shotgun ammunition F42B 7/00; practice or training ammunition F42B 8/00; missiles therefor F42B 12/00, F42B 14/00, F42B 15/00) **[1, 2006.01]**
5/02 • Cartridges, i.e. cases with propellant charge and missile **[1, 2006.01]**
5/03 • • containing more than one missile **[4, 2006.01]**
5/045 • • of telescopic type (F42B 5/184 takes precedence) **[5, 2006.01]**
5/05 • • for recoilless guns (recoilless guns using a counter-projectile to balance recoil F41A 1/10) **[4, 2006.01]**
5/067 • • Mounting or locking missiles in cartridge cases (F42B 5/18 takes precedence) **[5, 2006.01]**
5/073 • • • using an auxiliary locking element **[5, 2006.01]**
5/08 • • modified for electric ignition **[1, 2006.01]**
5/10 • • with self-propelled bullet **[1, 2006.01]**
5/14 • • for marking cattle **[1, 2006.01]**
5/145 • • for dispensing gases, vapours, powders, particles or chemically-reactive substances (from projectiles F42B 12/46, F42B 12/70) **[5, 2006.01]**
5/15 • • • for creating a screening or decoy effect, e.g. using radar chaff or infra-red material (infra-red flares F42B 4/26) **[5, 2006.01]**
5/155 • • • • Smoke-pot projectors, e.g. arranged on vehicles **[5, 2006.01]**
5/16 • • characterised by composition or physical dimensions or form of propellant charge or powder (chemical composition C06B) **[1, 2006.01]**
5/18 • • Caseless ammunition; Cartridges having combustible cases **[1, 5, 2006.01]**
5/184 • • • telescopic **[5, 2006.01]**
5/188 • • • Manufacturing processes therefor **[5, 2006.01]**
5/192 • • • Cartridge cases characterised by the material used **[5, 2006.01]**
5/196 • • • • Coatings **[5, 2006.01]**
5/24 • • for cleaning; for cooling; for lubricating **[1, 5, 2006.01]**
5/26 • Cartridge cases (F42B 5/18 takes precedence) **[1, 2006.01]**
5/28 • • of metal **[1, 2006.01]**
5/285 • • • formed by assembling several elements **[4, 2006.01]**
5/29 • • • • wound from sheets or strips **[4, 2006.01]**
5/295 • • • coated **[4, 2006.01]**
5/297 • • • • with plastics **[5, 2006.01]**
5/30 • • of plastics **[1, 2006.01]**
5/307 • • • formed by assembling several elements **[4, 2006.01]**
5/313 • • • • all elements made of plastics **[4, 2006.01]**
5/32 • • for rim fire **[1, 2006.01]**
5/34 • • with provision for varying the length **[1, 2006.01]**
5/36 • • modified for housing an integral firing-cap **[1, 2006.01]**
5/38 • Separately-loaded propellant charges, e.g. cartridge bags **[4, 2006.01]**

6/00 Projectiles or missiles specially adapted for projection without use of explosive or combustible propellant charge, e.g. for blow guns, bows or crossbows, hand-held spring or air guns (for delivering hypodermic charges F42B 12/54; throwing-darts A63B 65/02; projectiles or missiles incorporating springs as the projecting means F41B 7/02) **[5, 2006.01]**
6/02 • Arrows; Crossbow bolts; Harpoons for hand-held spring or air guns **[5, 2006.01]**
6/04 • • Archery arrows (F42B 6/08, F41B 5/06 take precedence) **[5, 2006.01]**
6/06 • • • Tail ends, e.g. nocks, fletching **[5, 2006.01]**

6/08 • • Arrow heads; Harpoon heads **[5, 2006.01]**
6/10 • Air gun pellets **[5, 2006.01]**

7/00 Shotgun ammunition [1, 2006.01]
7/02 • Cartridges, i.e. cases with propellant charge and missile **[1, 2006.01]**
7/04 • • of pellet type **[1, 2006.01]**
7/06 • • with cartridge case of plastics **[1, 2006.01]**
7/08 • • Wads therefor **[1, 2006.01]**
7/10 • • Ball or slug shotgun cartridges **[1, 2006.01]**
7/12 • • Cartridge top closures, i.e. for the missile side (closures for blasting cartridges F42B 3/24) **[5, 2006.01]**

8/00 Practice or training ammunition (range-reducing, destabilising or braking arrangements F42B 10/00; with signalling effect F42B 12/02; F42B 19/00 takes precedence) **[4, 2006.01]**
8/02 • Cartridges **[5, 2006.01]**
8/04 • • Blank cartridges, i.e. primed cartridges without projectile but containing an explosive or combustible powder charge **[5, 2006.01]**
8/06 • • • for cap-firing pistols **[5, 2006.01]**
8/08 • • Dummy cartridges, i.e. inert cartridges containing neither primer nor explosive or combustible powder charge **[5, 2006.01]**
8/10 • • with sub-calibre adaptor **[5, 2006.01]**
8/12 • Projectiles or missiles (F42B 19/36 takes precedence) **[5, 2006.01]**
8/14 • • disintegrating in flight or upon impact **[5, 2006.01]**
8/16 • • • containing an inert filler in powder or granular form **[5, 2006.01]**

Note(s) [5]

Group F42B 8/14 takes precedence over groups F42B 8/18-F42B 8/26.

8/18 • • Rifle grenades **[5, 2006.01]**
8/20 • • Mortar grenades **[5, 2006.01]**
8/22 • • Fall bombs **[5, 2006.01]**
8/24 • • Rockets **[5, 2006.01]**
8/26 • • Hand grenades **[5, 2006.01]**
8/28 • Land or marine mines; Depth charges **[5, 2006.01]**

10/00 Means for influencing, e.g. improving, the aerodynamic properties of projectiles or missiles; Arrangements on projectiles or missiles for stabilising, steering, range-reducing, range-increasing or fall-retarding (F42B 6/00 takes precedence; sub-calibre projectiles having sabots F42B 14/00) **[5, 2006.01]**
10/02 • Stabilising arrangements **[5, 2006.01]**
10/04 • • using fixed fins (F42B 10/22 takes precedence) **[5, 2006.01]**
10/06 • • • Tail fins **[5, 2006.01]**
10/08 • • • • Flechette-type projectiles **[5, 2006.01]**
10/10 • • • • the fins being formed in the barrel by deformation of the projectile body **[5, 2006.01]**
10/12 • • using fins longitudinally-slidable with respect to the projectile or missile **[5, 2006.01]**
10/14 • • using fins spread or deployed after launch, e.g. after leaving the barrel **[5, 2006.01]**
10/16 • • • Wrap-around fins **[5, 2006.01]**
10/18 • • • using a longitudinally slidable support member **[5, 2006.01]**
10/20 • • • deployed by combustion gas pressure, or by pneumatic or hydraulic forces **[5, 2006.01]**
10/22 • • Projectiles of cannelured type **[5, 2006.01]**
10/24 • • • with inclined grooves **[5, 2006.01]**
10/26 • • using spin (F42B 10/04, F42B 10/12, F42B 10/14, F42B 10/24, F42B 14/02 take precedence) **[5, 2006.01]**
10/28 • • • induced by gas action **[5, 2006.01]**
10/30 • • • • using rocket motor nozzles **[5, 2006.01]**
10/32 • Range-reducing or range-increasing arrangements; Fall-retarding means **[5, 2006.01]**
10/34 • • Tubular projectiles **[5, 2006.01]**
10/36 • • • Ring-foil projectiles **[5, 2006.01]**
10/38 • • Range-increasing arrangements (F42B 10/34 takes precedence) **[5, 2006.01]**
10/40 • • • with combustion of a slow-burning charge, e.g. fumers, base-bleed projectiles **[5, 2006.01]**
10/42 • • • Streamlined projectiles **[5, 2006.01]**
10/44 • • • • Boat-tails specially adapted for drag reduction **[5, 2006.01]**
10/46 • • • • Streamlined nose cones; Windshields; Radomes **[5, 2006.01]**
10/48 • • Range-reducing, destabilising or braking arrangements; Fall-retarding means (F42B 10/34 takes precedence) **[5, 2006.01]**
10/50 • • • Brake flaps **[5, 2006.01]**
10/52 • • • Nose cones **[5, 2006.01]**
10/54 • • • Spin braking means **[5, 2006.01]**
10/56 • • • of parachute type **[5, 2006.01]**
10/58 • • • of rotochute type **[5, 2006.01]**
10/60 • Steering arrangements (F42B 19/01 takes precedence) **[5, 2006.01]**
10/62 • • Steering by movement of flight surfaces **[5, 2006.01]**
10/64 • • • of fins **[5, 2006.01]**
10/66 • • Steering by varying intensity or direction of thrust (thrust vector control of rocket engine plants F02K 9/80) **[5, 2006.01]**

12/00 Projectiles, missiles or mines characterised by the warhead, the intended effect, or the material (F42B 6/00, F42B 10/00, F42B 14/00 take precedence; for practice or training F42B 8/12, F42B 8/28; self-propulsion or guidance aspects F42B 15/00) **[5, 2006.01]**
12/02 • characterised by the warhead or the intended effect **[5, 2006.01]**
12/04 • • of armour-piercing type **[5, 2006.01]**
12/06 • • • with hard or heavy core; Kinetic energy penetrators (F42B 12/16, F42B 12/74 take precedence) **[5, 2006.01]**
12/08 • • • with armour-piercing caps; with armoured cupola **[5, 2006.01]**
12/10 • • • with shaped or hollow charge (shaped or hollow charges per se F42B 1/02) **[5, 2006.01]**
12/12 • • • • rotatably mounted with respect to missile housing **[5, 2006.01]**
12/14 • • • • the symmetry axis of the hollow charge forming an angle with the longitudinal axis of the projectile **[5, 2006.01]**
12/16 • • • • in combination with an additional projectile or charge, acting successively on the target **[5, 2006.01]**
12/18 • • • • • Hollow charges in tandem arrangement **[5, 2006.01]**
12/20 • • of high-explosive type (F42B 12/44 takes precedence) **[5, 2006.01]**
12/22 • • • with fragmentation-hull construction **[5, 2006.01]**

12/24 • • • • with grooves, recesses or other wall weakenings **[5, 2006.01]**
12/26 • • • • the projectile wall being formed by a spirally-wound element **[5, 2006.01]**
12/28 • • • • the projectile wall being built from annular elements **[5, 2006.01]**
12/30 • • • • Continuous-rod warheads **[5, 2006.01]**
12/32 • • • • the hull or case comprising a plurality of discrete bodies, e.g. steel balls, embedded therein **[5, 2006.01]**
12/34 • • expanding before or on impact, i.e. of dumdum or mushroom type **[5, 2006.01]**
12/36 • • for dispensing materials; for producing chemical or physical reaction; for signalling **[5, 2006.01]**
12/38 • • • of tracer type **[5, 2006.01]**
12/40 • • • of target-marking, i.e. impact-indicating, type (F42B 12/48 takes precedence) **[5, 2006.01]**
12/42 • • • of illuminating type, e.g. carrying flares **[5, 2006.01]**
12/44 • • • of incendiary type (F42B 12/46 takes precedence) **[5, 2006.01]**
12/46 • • • for dispensing gases, vapours, powders or chemically-reactive substances (F42B 12/70 takes precedence) **[5, 2006.01]**
12/48 • • • • smoke-producing **[5, 2006.01]**
12/50 • • • • by dispersion **[5, 2006.01]**
12/52 • • • • • Fuel-air explosive devices **[5, 2006.01]**
12/54 • • • • by implantation, e.g. hypodermic projectiles **[5, 2006.01]**
12/56 • • • for dispensing discrete solid bodies (F42B 12/70 takes precedence) **[5, 2006.01]**
12/58 • • • • Cluster or cargo ammunition, i.e. projectiles containing one or more submissiles (F42B 12/32 takes precedence) **[5, 2006.01]**
12/60 • • • • • the submissiles being ejected radially **[5, 2006.01]**
12/62 • • • • • the submissiles being ejected parallel to the longitudinal axis of the projectile **[5, 2006.01]**
12/64 • • • • • • the submissiles being of shot- or flechette-type **[5, 2006.01]**
12/66 • • • • • Chain-shot, i.e. the submissiles being interconnected by chains or the like **[5, 2006.01]**
12/68 • • • • Line-carrying missiles, e.g. for life-saving (harpoons F42B 30/14) **[5, 2006.01]**
12/70 • • • • for dispensing radar chaff or infra-red material (radar-reflector targets, active targets transmitting infra-red radiation F41J 2/00; radar-reflecting surfaces H01Q 15/14) **[5, 2006.01]**
12/72 • characterised by the material (heat treatment for explosive shells C21D 9/16) **[5, 2006.01]**
12/74 • • of the core or solid body **[5, 2006.01]**
12/76 • • of the casing **[5, 2006.01]**
12/78 • • • of jackets for smallarm bullets **[5, 2006.01]**
12/80 • • • Coatings **[5, 2006.01]**
12/82 • • • • reduction friction **[5, 2006.01]**

14/00 Projectiles or missiles characterised by arrangements for guiding or sealing them inside barrels, or for lubricating or cleaning barrels [5, 2006.01]
14/02 • Driving bands; Rotating bands (F42B 14/04 takes precedence) **[5, 2006.01]**
14/04 • Lubrication means in missiles (coatings for reducing friction F42B 12/82) **[5, 2006.01]**
14/06 • Sub-calibre projectiles having sabots; Sabots therefor **[5, 2006.01]**
14/08 • • Sabots filled with propulsive charges; Removing sabots by combustion of pyrotechnic elements or by propulsive-gas pressure (arrangements on barrels for removing sabots from projectiles F41A 21/46) **[5, 2006.01]**

15/00 Self-propelled projectiles or missiles, e.g. rockets; Guided missiles (F42B 10/00, F42B 12/00, F42B 14/00 take precedence; for practice or training F42B 8/12; rocket torpedoes F42B 17/00; marine torpedoes F42B 19/00; cosmonautic vehicles B64G; jet-propulsion plants F02K) **[1, 4, 2006.01]**
15/01 • Arrangements thereon for guidance or control (aircraft flight control B64C; guidance systems other than those only installed aboard F41G 7/00, F41G 9/00; locating by use of radio or other waves G01S; flight control in general G05D 1/00; computing aspects G06) **[5, 2006.01]**
15/04 • • using wire, e.g. for guiding ground-to-ground rockets **[1, 2006.01]**
15/08 • for carrying measuring instruments (adaptations for meteorology G01W 1/08) **[1, 2006.01]**
15/10 • Missiles having a trajectory only in the air **[1, 2006.01]**
15/12 • • Intercontinental ballistic missiles (F42B 15/01 takes precedence) **[1, 4, 2006.01]**
15/20 • Missiles having a trajectory beginning below water surface (having additional propulsion means for movement through water F42B 17/00) **[1, 2006.01]**
15/22 • Missiles having a trajectory finishing below water surface (having additional propulsion means for movement through water F42B 17/00) **[1, 2006.01]**
15/34 • Protection against overheating or radiation, e.g. heat shields; Additional cooling arrangements **[5, 2006.01]**
15/36 • Means for interconnecting rocket-motor and body section; Multi-stage connectors; Disconnecting means **[5, 2006.01]**
15/38 • • Ring-shaped explosive elements for the separation of rocket parts **[5, 2006.01]**

17/00 Rocket torpedoes, i.e. missiles provided with separate propulsion means for movement through air and through water (F42B 12/00 takes precedence) **[1, 2006.01]**

19/00 Marine torpedoes, e.g. launched by surface vessels or submarines (having additional propulsion means for movement through air F42B 17/00)**; Sea mines having self-propulsion means** (F42B 12/00 takes precedence; launching means F41F; locating by use of radio or other waves G01S; automatic control of course G05D 1/00; firing directors or calculators G06G) **[1, 2006.01]**
19/01 • Steering control **[1, 2006.01]**
19/04 • • Depth control **[1, 2006.01]**
19/06 • • Directional control **[1, 2006.01]**
19/08 • • with means for preventing rolling or pitching **[1, 2006.01]**
19/10 • • remotely controlled, e.g. by sonic or radio control (control systems using wire F41G 7/32) **[1, 2006.01]**
19/12 • Propulsion specially adapted for torpedoes (marine propulsion in general B63H) **[1, 2006.01]**
19/14 • • by compressed-gas motors **[1, 2006.01]**
19/16 • • • of cylinder type **[1, 2006.01]**
19/18 • • • of turbine type **[1, 2006.01]**

19/20 • • • characterised by the composition of propulsive gas; Manufacture or heating thereof in torpedoes **[1, 2006.01]**
19/22 • • by internal-combustion engines **[1, 2006.01]**
19/24 • • by electric motors **[1, 2006.01]**
19/26 • • by jet propulsion **[1, 2006.01]**
19/28 • • with means for avoiding visible wake **[1, 2006.01]**
19/30 • • with timing control of propulsion **[1, 2006.01]**
19/36 • adapted to be used for exercise purposes, e.g. indicating position or course **[1, 2006.01]**
19/38 • • with means for causing torpedoes to surface at end of run **[1, 2006.01]**
19/40 • • • by expelling liquid ballast **[1, 2006.01]**
19/42 • • • by releasing solid ballast **[1, 2006.01]**
19/44 • • • by enlarging displacement **[1, 2006.01]**
19/46 • adapted to be launched from aircraft **[1, 2006.01]**

21/00 **Depth charges** (F42B 12/00 takes precedence; for practice or training F42B 8/28; laying aspects B63G) **[1, 2006.01]**

22/00 **Marine mines, e.g. launched by surface vessels or submarines** (F42B 12/00 takes precedence; for practice or training F42B 8/28; mine laying or sweeping B63G) **[1, 2006.01]**
22/02 • Contact mines (contact fuzes F42C 7/02) **[1, 2006.01]**
22/04 • Influenced mines, e.g. by magnetic or acoustic effect **[1, 2006.01]**
22/06 • Ground mines **[1, 2006.01]**
22/08 • Drifting mines (with propulsion means F42B 19/00) **[1, 2006.01]**
22/10 • Moored mines **[1, 2006.01]**
22/12 • • at a fixed depth setting **[1, 2006.01]**
22/14 • • at a variable depth setting **[1, 2006.01]**
22/16 • • • using mechanical means, e.g. plummet and float **[1, 2006.01]**
22/18 • • • using hydrostatic means **[1, 2006.01]**
22/20 • • • using magnetic or acoustic depth-control means **[1, 2006.01]**
22/22 • having self-contained sinking means **[1, 2006.01]**
22/24 • Arrangement of mines in fields or barriers (net barriers for harbour defence F41H 11/05) **[1, 2006.01]**
22/42 • with anti-sweeping means, e.g. electrical **[1, 2006.01]**
22/44 • adapted to be launched from aircraft **[1, 2006.01]**

23/00 **Land mines** (F42B 12/00 takes precedence; for practice or training F42B 8/28) **[1, 2006.01]**
23/04 • anti-vehicle **[1, 5, 2006.01]**
23/08 • • non-metallic **[1, 5, 2006.01]**
23/10 • anti-personnel **[1, 5, 2006.01]**
23/14 • • non-metallic **[1, 5, 2006.01]**
23/16 • • of missile type, i.e. for detonation after ejection from ground (fuzes for initiating mine ejection F42C 1/09) **[1, 5, 2006.01]**
23/24 • Details **[1, 2006.01]**

25/00 **Fall bombs** (F42B 10/00, F42B 12/00 take precedence; for practice or training F42B 8/12) **[1, 5, 2006.01]**

27/00 **Hand grenades** (F42B 12/00 takes precedence; for practice or training F42B 8/12) **[1, 2006.01]**
27/08 • with handle **[1, 2006.01]**

29/00 **Noiseless, smokeless, or flashless missiles launched by their own explosive propellant [1, 2006.01]**

30/00 **Projectiles or missiles, not otherwise provided for, characterised by the ammunition class or type, e.g. by the launching apparatus or weapon used** (F42B 10/00, F42B 12/00, F42B 14/00 take precedence) **[5, 2006.01]**
30/02 • Bullets **[5, 2006.01]**
30/04 • Rifle grenades **[5, 2006.01]**
30/06 • • Bullet traps or bullet decelerators therefor **[5, 2006.01]**
30/08 • Ordnance projectiles or missiles, e.g. shells **[5, 2006.01]**
30/10 • • Mortar projectiles **[5, 2006.01]**
30/12 • • • with provision for additional propulsive charges, or for varying the length **[5, 2006.01]**
30/14 • Harpoons (for hand-held spring or air guns F42B 6/02) **[5, 2006.01]**

33/00 **Manufacture of ammunition; Dismantling of ammunition; Apparatus therefor** (F42B 5/188 takes precedence; manufacturing processes for hollow charges F42B 1/036; manufacturing of blasting cartridge initiators F42B 3/195) **[1, 2006.01]**
33/02 • Filling cartridges, missiles, or fuzes; Inserting propellant or explosive charges **[1, 2006.01]**
33/04 • Fitting or extracting primers in or from fuzes or charges **[1, 2006.01]**
33/06 • Dismantling fuzes, cartridges, projectiles, missiles, rockets, or bombs (F42B 33/04 takes precedence) **[1, 2006.01]**
33/10 • Reconditioning used cartridge cases **[1, 2006.01]**
33/12 • Crimping shotgun cartridges **[1, 2006.01]**
33/14 • Surface treatment of cartridges or cartridge cases **[1, 2006.01]**

35/00 **Testing or checking of ammunition [1, 2006.01]**
35/02 • Gauging, sorting, trimming or shortening cartridges or missiles **[1, 2006.01]**

39/00 **Packaging or storage of ammunition or explosive charges; Safety features thereof; Cartridge belts or bags [1, 2006.01]**
39/02 • Cartridge bags; Bandoleers **[1, 2006.01]**
39/08 • Cartridge belts **[1, 2006.01]**
39/10 • • Machines for charging or for extracting cartridges from feed belts **[1, 2006.01]**
39/14 • Explosion or fire protection arrangements on packages or ammunition (F42B 39/20 takes precedence) **[5, 2006.01]**
39/16 • • Fire-extinguishing **[5, 2006.01]**
39/18 • • Heat shields; Thermal insulation **[5, 2006.01]**
39/20 • Packages or ammunition having valves for pressure-equalising; Packages or ammunition having plugs for pressure release, e.g. meltable **[5, 2006.01]**
39/22 • Locking of ammunition in transport containers **[5, 2006.01]**
39/24 • Shock-absorbing arrangements in packages **[5, 2006.01]**
39/26 • Packages or containers for a plurality of ammunition, e.g. cartridges (F42B 39/14-F42B 39/24, F42B 39/28 take precedence) **[5, 2006.01]**
39/28 • Ammunition racks, e.g. in vehicles **[5, 2006.01]**
39/30 • Containers for detonators or fuzes (F42B 39/14, F42B 39/20 take precedence) **[5, 2006.01]**

99/00 **Subject matter not provided for in other groups of this subclass [2006.01]**