CPC COOPERATIVE PATENT CLASSIFICATION

F MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING
(NOTE omitted)

WEAPONS; BLASTING

F41 WEAPONS
(NOTES omitted)

F41H ARMOUR; ARMoured TURRETS; ARMoured OR ARMED VEHICLeS; MEANS OF ATTACK OR DEFENCE, e.g. CAMOUFLAGE, IN GENERAL

WARNING
In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

1/00 Personal protection gear (shields for personal use F41H 5/08; {footwear for use in minefields A43B 3/0026}; for protection against chemical warfare A62B) 5/047 . . . [Transparent bullet-proof laminates] [informative reference: layered products essentially comprising glass in general B32B 17/06; e.g., B32B 17/10009; manufacture or composition of glass, e.g., joining glass to glass C03; permanent multiple-glazing windows, e.g., with spacing therebetween, E06B 3/66]

1/02 . . Armoured or projectile- or missile-resistant garments; Composite protection fabrics { (F41H 5/04 takes precedence) } 5/041 . . [Layered armour containing ceramic material]

1/04 . . Protection helmets (crash helmets A42B 3/00) 5/0421 . . . [Ceramic layers in combination with metal layers]

1/06 . . of steel; Steel head-shields 5/0428 . . . [Ceramic layers in combination with additional layers made of fibres, fabrics or plastics]

1/08 . . of plastics; Plastic head-shields 5/0435 . . . [the additional layers being only fibre- or fabric-reinforced layers]

3/00 Camouflage, i.e. means or methods for concealment or disguise (for vessels B63G 8/34, B63G 13/02; sound camouflage, i.e. simulating gun fire noise, F41A 33/04; dummy or decoy targets F41J; chaff per se F41J 2/00; ammunition for dispensing chaff F42B 5/15, F42B 12/70; radar absorbing fabrics H01Q 17/005) 5/0442 . . . [Layered armour containing metal (in combination with ceramic layers F41H 5/0421; heat treatment of armour plate C21D 9/42)]

3/02 . . {Flexible, e.g. fabric} covers, e.g. screens, nets {characterised by their material or structure} (making thereof, see the relevant classes, e.g., D04) 5/045 . . . [all the layers being metal layers]

5/00 Armour; Armour plates (processes for manufacturing or treating B21, C21; [heat treatment C21D 9/42; wall or panel structure for safes E05G 1/024]) 5/0457 . . . [Metal layers in combination with additional layers made of fibres, fabrics or plastics]

5/007 . . Reactive armour; Dynamic armour 5/0464 . . . [the additional layers being only fibre- or fabric-reinforced layers]


5/02 . . Plate construction 5/0478 . . . [Fibre- or fabric-reinforced layers in combination with plastics layers]

5/023 . . {Armour plate, or auxiliary armour plate mounted at a distance of the main armour plate, having cavities at its outer impact surface, or holes, for deflecting the projectile} 5/0485 . . . [all the layers being only fibre- or fabric-reinforced layers]

5/026 . . . . {Slat armour; Nets} 5/0492 . . . [Layered armour containing hard elements, e.g. plates, spheres, rods, separated from each other, the elements being connected to a further flexible layer or being embedded in a plastics or an elastomer matrix]

5/04 . . composed of more than one layer {(outerwear resistant to mechanical aggressions A41D 31/24; layered products B32B; shaping reinforced articles B29C 6/700)} 5/06 . Shields (in ships B63G 9/00; in aircraft B64D 7/00 {; blasting mats F42D 5/05})

5/08 . . for personal use {, i.e. hand held shields}

5/10 . . Spade bayonets, i.e. usable as a spade, bayonet or cover against rifle fire {(not used; see F41C 27/04)}
9/06. Apparatus for generating artificial fog or smoke screens (for producing special effects on stages A63J 5/001; smoke-pot projectors, e.g. arranged on vehicles, F42B 5/155)
9/08. . Smoke-pots without propulsive charge, i.e. stationary
9/10. Hand-held or body-worn self-defence devices using repellent gases or chemicals

11/00 Defence installations; Defence devices
(constructional aspects see Section E, e.g. (air-rain shelters) E04H 9/04; protective arrangements for buildings E04B 1/02; extinguishing or preventing the spread of fire, incendiary bombs A62C 3/06; dynamic armour F41H 5/007; ballistically deployed systems for restraining persons or animals F41H 13/0006; electronic countermeasures G01S))

11/02. Anti-aircraft or anti-guided missile (or anti-torpedo) defence installations or systems (cartridges or missiles for producing smoke or for dispensing radar chaff or infra-red material F42B 5/15, F42B 12/48, F42B 12/70; [informative reference: details of radar or sonar systems G01S 7/00; jamming or electronic countermeasures G01S 7/38, G01S 7/495, H04K 3/00])
11/04. . Aerial barrages
11/05. Net barriers for harbour defence (arrangement of mines F42B 22/224; protective nets used with ships B63G 9/04)
11/06. Guntraps (devices specially adapted for the protection against criminal attack in airplanes B64D 45/0015; burglar traps or the like, on safes E05G 5/02; identifying, scaring or incapacitating burglars, thieves, or intruders G08B 15/00)
11/08. Barbed-wire obstacles; Barricades; Stanchions; Tank traps; Vehicle-impeding devices; Caltrops (making barbed wire B21F 25/00; barbed-wire fencing E01H 17/04; road barricades, obstructing passage of vehicles or pedestrians E01F 13/000)
11/10. . Dispensing-apparatus therefor, e.g. devices for dispensing or reeling barbed wire
11/11. . Clearing or neutralising barbed wire obstacles (devices mounted on vehicles for cutting wire-type obstructions B60R 19/545; smallarm attachments for wire cutting F41C 27/20)
11/12. Means for clearing land minefields; Systems specially adapted for detection of landmines
11/13. . Systems specially adapted for detection of landmines
11/132. . Biological systems, e.g. with detection by animals or plants
11/134. . Chemical systems, e.g. with detection by vapour analysis
11/136. . Magnetic, electromagnetic, acoustic or radiation systems, e.g. ground penetrating radars or metal-detectors
11/138. . Mechanical systems, e.g. prodding sticks for manual detection
11/14. . Explosive line charges, e.g. snakes
11/16. . Self-propelled mine-clearing vehicles; Mine-clearing devices attachable to vehicles
11/18. . with ground-impacting means for activating mines by the use of mechanical impulses, e.g. flails or stamping elements
with ground-penetrating elements, e.g. with means for removing buried landmines from the soil (F41H 11/18 takes precedence)

d. . . . . the elements being excavation buckets

d. . . . . the elements being ploughs

d. . . . . the elements being rotary ground-penetrating elements

d. . . using brushing or sweeping means or dozers to push mines lying on a surface aside; using means for removing mines intact from a surface

d. . . . . with rollers creating a surface load on the ground, e.g. steadily increasing surface load, for triggering purposes

Decoy or sacrificial vehicles; Decoy or sacrificial devices attachable to vehicles

Means of attack or defence not otherwise provided for {details of radar or sonar systems G01S 7/00}

Ballistically deployed systems for restraining persons or animals, e.g. ballistically deployed nets

{Electrical discharge weapons, e.g. for stunning, such as tasers}

{for nearby electrical discharge, i.e. the electrodes being positioned on the device and the device brought manually or otherwise into contact with a nearby target (batons with electric discharge capability F41B 15/04; electric shock devices for animals A01K 15/02)}

{for remote electrical discharge via conducting wires, e.g. via wire-tethered electrodes shot at a target}

{for remote electrical discharge by means of a wireless projectile}

{for remote electrical discharge via liquid jets (details of the gun for generating the liquid jets F41B 9/00)}

{Directed energy weapons, i.e. devices that direct a beam of high energy content toward a target for incapacitating or destroying the target}

{the high-energy beam being a laser beam}

{for blinding or dazzling, i.e. by overstimulating the opponent's eyes or the enemy's sensor equipment}

{causing structural damage to the target}

{the high-energy beam being of microwave type, e.g. for causing a heating effect in the target}

{the high-energy beam being a radiofrequency beam}

{the high-energy beam being acoustic, e.g. sonic, infrasonic or ultrasonic}

{the high-energy beam being a bright light, e.g. for dazzling or blinding purposes (F41H 13/0056 takes precedence)}

{Devices generating an electromagnetic pulse, e.g. for disrupting or destroying electronic devices}