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 5/008; [ footwear for use in minefields A43B 3/0026 ]; for protection against chemical warfare A62B )

1/02 . . Armoured or projectile- or missile-resistant garments; Composite protection fabrics ([ F41H 5/04 takes precedence ]) . .

1/04 . . Protection helmets ( crash helmets A42B 3/00 )

1/06 . . of steel; Steel head-shields

1/08 . . of plastics; Plastic head-shields

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 )

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 ]

5/00 Armour; Armour plates ( processes for manufacturing or treating B21, C21; [ heat treatment C21D 9/42; wall or panel structure for safes E05G 1/024 ] )

5/007 . . Reactive armour; Dynamic armour

5/013 Mounting or securing armour plates

5/02 . . Plate construction

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

5/026 . . . . Slat armour; Nets

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 )

5/047 . . . . [ 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 ]

5/0414 . . . . [ Layered armour containing ceramic material ]

5/0421 . . . . [ Ceramic layers in combination with metal layers ]

5/0428 . . . . [ Ceramic layers in combination with additional layers made of fibres, fabrics or plastics ]

5/0435 . . . . . . . the additional layers being only fibre- or fabric-reinforced layers

5/0442 . . . . [ Layered armour containing metal ( in combination with ceramic layers F41H 5/0421; heat treatment of armour plate C21D 9/42 )]

5/045 . . . . [ all the layers being metal layers ]

5/0457 . . . . [ Metal layers in combination with additional layers made of fibres, fabrics or plastics ]

5/0464 . . . . [ the additional layers being only fibre- or fabric-reinforced layers ]

5/0471 . . . . [ Layered armour containing fibre- or fabric-reinforced layers ( in combination with ceramic layers F41H 5/0428, with metal layers F41H 5/0457 )]

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

5/0485 . . . . [ all the layers being only fibre- or fabric-reinforced layers ]

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 ]

5/06 . . 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 ])

CPC - 2020.02

1
5/12 . . for smallarms; for light-rocket launchers { (shields attached to smallarms F41C 27/04) }
5/14 . . Wheeled armoured shields
5/16 . . for ordnance { (or tanks (F41H 5/18 takes precedence) }
5/18 . . Rotating shields
5/20 . Turrets { (on vehicles F41H 7/04) }
5/22 . Manhole covers, e.g. on tanks; [Doors on armoured vehicles or structures] 
5/22 . . [Manhole covers specially adapted for armoured or fighting vehicles]
5/226 . . [Doors on armoured vehicles or structures (F41H 5/263 takes precedence)]
5/24 . for stationary use, e.g. fortifications {Shelters, Guard Booths (air-raid shelters F04H 9/04) }
5/26 . Peepholes; Windows; [Loopholes] { manufacture or composition of glass CO3; Covers therefor [informative reference: transparent bullet-proof laminates F41H 5/0407; layered products essentially comprising glass B32B 17/06] }
5/263 . . [Mounting of transparent armoured panels, e.g. bulletproof windows on vehicles]
5/266 . . [Periscopes for fighting or armoured vehicles]
7/00 . . Armoured or armoured vehicles (general vehicle aspects B60: armoured or armed ships B63G; armoured or armed aircraft B64D; mounting guns, e.g. machine guns, on vehicles F41A 23/00) }
7/005 . { Unmanned ground vehicles, i.e. robotic, remote controlled or autonomous, mobile platforms carrying equipment for performing a military or police role, e.g. weapon systems or reconnaissance sensors (F41H 11/16 takes precedence) }
7/02 . Land vehicles with enclosing armour, e.g. tanks (endless-track vehicles, steering thereof B62D ; vehicles for placing portable or sectional bridges E01D 15/127 ; vehicles carrying floating bridges E01D 15/22) }
7/03 . . Air-pressurised compartments for crew; Means for preventing admission of noxious substances, e.g. combustion gas from gun barrels, in crew compartments; Sealing arrangements
7/035 . . . [Gratings for ventilation openings]
7/04 . . . Armour construction { (in general F41H 5/00) }
7/042 . . . [Floors or base plates for increased land mine protection]
7/044 . . . [Hull or cab construction other than floors or base plates for increased land mine protection (mounting of armoured plates F41H 5/013) ]
7/046 . . . [Shock resilient mounted seats for armoured or fighting vehicles]
7/048 . . . [Vehicles having separate armoured compartments, e.g. modular armoured vehicles]
7/10 . Mine-laying land vehicles
9/00 . Equipment for attack or defence by spreading flame, gas or smoke { (or leurre) ; Chemical warfare equipment (protection against chemicals A62B) }
9/02 . Flame-throwing apparatus { (for destroying vegetation A01M 15/00) }
9/04 . Gas-blowing apparatus, e.g. for tear gas (F41H 9/10 takes precedence)
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 repellant gases or chemicals
11/00 . Defence installations; Defence devices (constructional aspects see Section E, e.g. [air-raid shelters] E04H 9/04; [protective arrangements for buildings E04B 1/02; extinguishing or preventing the spread of fire from, incendiary bombs A62C 3/06; dynamic armour F41H 5/007; ballistically deployed systems for restraining persons or animals F41H 13/0000; 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 22/24; 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, scarifying 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 E04H 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. probing sticks for manual detection
11/14 . . Explusive 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)

the elements being excavation buckets

the elements being ploughs

the elements being rotary ground-penetrating elements

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

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

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

[Electrical discharge weapons, e.g. for stunning]

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]