

CPC COOPERATIVE PATENT CLASSIFICATION

A HUMAN NECESSITIES

HEALTH; AMUSEMENT

A62 LIFE-SAVING; FIRE-FIGHTING

A62C FIRE-FIGHTING (fire-extinguishing compositions, use of chemical substances in extinguishing fires [A62D 1/00](#); spraying, applying liquids or other fluent materials to surfaces in general [B05](#); alarm arrangements [G08B](#), e.g. fire alarms actuated by smoke or gases [G08B 17/10](#))

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.

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|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2/00 | Fire prevention or containment (A62C 3/00 takes precedence; flame traps A62C 4/00) | 3/008 | . {for decorations, e.g. Christmas trees (Christmas tree decorations incorporating fire extinguishing or fire prevention means A47G 33/0872 ; blowing or snuffing out candle-flames F23Q 25/00)} |
| 2/04 | . Removing or cutting-off the supply of inflammable material | 3/02 | . for area conflagrations, e.g. forest fires, subterranean fires |
| 2/06 | . Physical fire-barriers | 3/0207 | . . {by blowing air or gas currents with or without dispersion of fire extinguishing agents; Apparatus therefor, e.g. fans} |
| 2/065 | . . {having as the main closure device materials, whose characteristics undergo an irreversible change under high temperatures, e.g. intumescent (intumescent materials forming part of the mechanism of another main closure device, see the relevant class)} | 3/0214 | . . {for buildings or installations in fire storms} |
| 2/08 | . . Water curtains (nozzles A62C 31/02) | 3/0221 | . . {for tunnels} |
| 2/10 | . . Fire-proof curtains | 3/0228 | . . {with delivery of fire extinguishing material by air or aircraft (fire-fighting aircraft B64D 1/16)} |
| 2/12 | . . Hinged dampers | 3/0235 | . . . {by means of containers, e.g. buckets} |
| 2/14 | . . . with two or more blades | 3/0242 | . . . {by spraying extinguishants from the aircraft (spraying from aircraft in general B64D 1/16)} |
| 2/16 | . . . multi-vane roll or fold-up type | 3/025 | . . . {Fire extinguishing bombs; Projectiles and launchers therefor (launching apparatus for projectiles, missiles or torpedoes in general F41F 1/00, F41F 3/00, F41F 7/00)} |
| 2/18 | . . Sliding dampers | 3/0257 | . . {Fire curtains, blankets, walls, fences} |
| 2/20 | . . . at 90 degrees to the plane of the opening | 3/0264 | . . . {by creating water curtains} |
| 2/22 | . . Fire-dampers with provision for the removal of an obstacle, e.g. rails, conveyors, before closing the opening | 3/0271 | . . {Detection of area conflagration fires (fire alarms for forest fires G08B 17/005)} |
| 2/24 | . . Operating or controlling mechanisms {(emergency operation of doors and windows E05F 1/002, E05F 15/72)} | 3/0278 | . . {by creating zones devoid of flammable material} |
| 2/241 | . . . {having mechanical actuators and heat sensitive parts} | 3/0285 | . . . {with creation of a fire zone by an explosion or a counter-fire} |
| 2/242 | {with fusible links} | 3/0292 | . . {by spraying extinguishants directly into the fire (A62C 3/0242 takes precedence)} |
| 2/243 | {with frangible elements} | 3/04 | . for dust or loosely-baled or loosely-piled materials, e.g. in silos, in chimneys (flame traps A62C 4/00) |
| 2/245 | {with thermostatic elements, e.g. bimetallic, resettable actuators} | 3/06 | . of highly inflammable material, e.g. light metals, petroleum products |
| 2/246 | . . . {having non-mechanical actuators} | 3/065 | . . {for containers filled with inflammable liquids} |
| 2/247 | {electric} | 3/07 | . in vehicles, e.g. in road vehicles |
| 2/248 | {pneumatic} | 3/08 | . . in aircraft {(A62C 3/0207 takes precedence)} |
| 3/00 | Fire prevention, containment or extinguishing specially adapted for particular objects or places ({in oil wells E21B 29/08, A62C 35/00 ; in mines or tunnels E21F 5/00 }; for nuclear reactors G21C 9/04) | 3/10 | . . in ships {(A62C 3/0207 takes precedence)} |
| 3/002 | . {for warehouses, storage areas or other installations for storing goods} | 3/14 | . {in connection with doors, windows, ventilators, partitions, or shutters, e.g. automatic closing} |
| 3/004 | . . {for freezing warehouses and storages} | 3/16 | . in electrical installations, e.g. cableways |
| 3/006 | . {for kitchens or stoves} | 4/00 | Flame traps allowing passage of gas but not of flame or explosion wave |

- 4/02 . in gas-pipes ([safety valves F16K 17/00](#))
- 4/04 . in flues or chimneys
- 5/00 Making of fire-extinguishing materials immediately before use** ([nozzles A62C 31/02](#))
- 5/002 . {Apparatus for mixing extinguishants with water}
- 5/004 . {for producing carbon-dioxide snow, carbon-dioxide ice, carbon-dioxide gas, carbon-dioxide liquid, or mixtures thereof ([carbon-dioxide jet-pipes or snow jet-pipes A62C 31/03](#))}
- 5/006 . {Extinguishants produced by combustion}
- 5/008 . {for producing other mixtures of different gases or vapours, water and chemicals, e.g. water and wetting agents, water and gases}
- 5/02 . of foam
- 5/022 . . {with air or gas present as such}
- 5/024 . . . {Apparatus in the form of pipes ([jet-pipes for foam A62C 31/12](#))}
- 5/027 . . Heavy foam
- 5/033 . of gel

Hand fire-extinguishers

- 8/00 Hand tools or accessories specially adapted for fire-fighting, e.g. tool boxes**
- 8/005 . {Receptacles or other utensils for water carrying; Bombs filled with extinguishing agents}
- 8/02 . Buckets or pails
- 8/04 . Rakes or beaters
- 8/06 . Fire-blankets
- 8/08 . Shields
- 11/00 Portable extinguishers with manually-operated pumps**
- 11/005 . {Receptacles of extinguishing agent with manually operable pump}
- 13/00 Portable extinguishers which are permanently pressurised or pressurised immediately before use** ([A62C 11/00 takes precedence](#))
- 13/003 . {Extinguishers with spraying and projection of extinguishing agents by pressurised gas}
- 13/006 . {for the propulsion of extinguishing powder}
- 13/02 . with pressure gas produced by chemicals
- 13/04 . . with separate acid container
- 13/06 . . . with acid container without closure device
- 13/08 . . . with acid container with closure device
- 13/10 with loose-lid closure device ([loosely-engaging lids or covers for containers for liquids without means for effecting sealing of container in general B65D 51/02](#))
- 13/12 with valve closure device
- 13/14 . . . with acid container the shell of which is ruptured by pin, screw-pin, or similar device
- 13/16 . . . with movable acid container ruptured by falling when operated
- 13/18 . . . with acid container ruptured by a striking weight, e.g. by a falling weight
- 13/20 . . with the chemicals in a single case, e.g. in a cartridge
- 13/22 . . with incendiary substances producing pressure gas
- 13/62 . with a single permanently pressurised container
- 13/64 . . the extinguishing material being released by means of a valve

- 13/66 . with extinguishing material and pressure gas being stored in separate containers
- 13/68 . . characterised by means for releasing the extinguishing material
- 13/70 . . characterised by means for releasing the pressure gas
- 13/72 . . characterised by releasing means operating essentially simultaneously on both containers
- 13/74 . . . the pressure gas container being pierced or broken
- 13/76 . Details or accessories
- 13/78 . . Suspending or supporting devices

15/00 Extinguishers essentially of the knapsack type ([knapsacks, carrying-frames, pack-frames carried on the body A45F 3/00](#))

17/00 Hand fire-extinguishers essentially in the form of pistols or rifles

19/00 Hand fire-extinguishers in which the extinguishing substance is expelled by an explosion; Exploding containers thrown into the fire

25/00 Portable extinguishers with power-driven pumps
25/005 . {Accessories}

Fire-fighting vehicles ([A62C 31/00](#), [A62C 33/00](#), [A62C 37/00](#) take precedence; vehicle aspects, [see the appropriate subclasses of B60 - B64](#), e.g. [fire-fighting aircraft B64D 1/16](#))

27/00 Fire-fighting land vehicles

29/00 Fire-fighting vessels or like floating structures

31/00 Delivery of fire-extinguishing material ([pumps F04](#); {suction or pressure} hoses, {joints or couplings therefor} [F16L](#))

31/005 . {using nozzles}

WARNING

see warning after subclass title

- 31/02 . Nozzles specially adapted for fire-extinguishing
- 31/03 . . adjustable, e.g. from spray to jet or [vice versa](#)
- 31/05 . . with two or more outlets
- 31/07 . . . for different media
- 31/12 . . for delivering foam or atomised foam
- 31/22 . . specially adapted for piercing walls, heaped materials, or the like
- 31/24 . . attached to ladders, poles, towers, or other structures with or without rotary heads
- 31/28 . Accessories for delivery devices, e.g. supports

33/00 Hose accessories

- 33/02 . Apparatus for cleaning or drying hoses ([drying shelves F26B](#))
- 33/04 . Supports or clamps for fire hoses
- 33/06 . Hose or pipe bridges

Permanently-installed equipment

35/00 Permanently-installed equipment ([A62C 31/00](#), [A62C 33/00](#), [A62C 37/00](#) take precedence; for [forming water curtains A62C 2/08](#))

- 35/02 . with containers for delivering the extinguishing substance

- 35/023 . . {the extinguishing material being expelled by compressed gas, taken from storage tanks, or by generating a pressure gas (for foam generation [A62C 5/02](#))}
- 35/026 . . {the extinguishing material being put under pressure by means other than pressure gas, e.g. pumps}
- 35/04 . . Swingable or tiltable containers
- 35/06 . . Containers destroyed or opened by falling
- 35/08 . . Containers destroyed or opened by bursting charge

WARNING

Group [A62C 35/08](#) is incomplete pending reclassification of documents from group [A62C 37/28](#).

Groups [A62C 37/28](#) and [A62C 35/08](#) should be considered in order to perform a complete search.

- 35/10 . . Containers destroyed or opened by flames or heat
- 35/11 . . controlled by a signal from the danger zone
- 35/13 . . . with a finite supply of extinguishing material
- 35/15 . . . with a system for topping-up the supply of extinguishing material automatically
- 35/20 . Hydrants, e.g. wall-hoses, wall units, plug-in cabinets ([hydrants in streets E03B 9/02](#))
- 35/58 . Pipe-line systems
- 35/60 . . wet, i.e. containing extinguishing material even when not in use
- 35/605 . . . {operating and sounding alarm automatically}

WARNING

see warning after subclass title

- 35/62 . . dry, i.e. empty of extinguishing material when not in use
- 35/64 . . pressurised
- 35/645 . . . {with compressed gas in pipework}

WARNING

see warning after subclass title

- 35/66 . . . Accelerators
- 35/68 . . Details, e.g. of pipes or valve systems ([valves in general F16K](#))

37/00 Control of fire-fighting equipment (heat-sensitive devices [G01K](#))

- 37/04 . {with electrically-controlled release}
- 37/08 . comprising an outlet device containing a sensor, or itself being the sensor, i.e. self-contained sprinklers

WARNING

Group [A62C 37/08](#) is incomplete pending reclassification of documents from group [A62C 37/28](#).

Groups [A62C 37/28](#) and [A62C 37/08](#) should be considered in order to perform a complete search.

- 37/09 . . telescopic or adjustable
- 37/10 . . Releasing means, e.g. electrically released
- 37/11 . . . heat-sensitive
- 37/12 with fusible links
- 37/14 with frangible vessels

- 37/16 with thermally-expansible links
- 37/20 . . Resetting after use; Tools therefor
- 37/21 . . . automatic
- 37/28 . . {with an explosive charge}

(Frozen)

WARNING

Group [A62C 37/28](#) is no longer used for the classification of documents as of August 1, 2018. The content of this group is being reclassified into groups [A62C 35/08](#), [A62C 37/08](#), and [A62C 37/36](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 37/36 . an actuating signal being generated by a sensor separate from an outlet device

WARNING

Group [A62C 37/36](#) is incomplete pending reclassification of documents from group [A62C 37/28](#).

Groups [A62C 37/28](#) and [A62C 37/36](#) should be considered in order to perform a complete search.

- 37/38 . . by both sensor and actuator, e.g. valve, being in the danger zone
- 37/40 . . . with electric connection between sensor and actuator
- 37/42 . . . with mechanical connection between sensor and actuator, e.g. rods, levers
- 37/44 . . only the sensor being in the danger zone
- 37/46 . . Construction of the actuator
- 37/48 . . . Thermally sensitive initiators
- 37/50 . Testing or indicating devices for determining the state of readiness of the equipment

99/00 Subject matter not provided for in other groups of this subclass

- 99/0009 . {Methods of extinguishing or preventing the spread of fire by cooling down or suffocating the flames}
- 99/0018 . . {using gases or vapours that do not support combustion, e.g. steam, carbon dioxide}
- 99/0027 . . . {Carbon dioxide extinguishers}
- 99/0036 . . {using foam}
- 99/0045 . . {using solid substances, e.g. sand, ashes; using substances forming a crust}
- 99/0054 . . {using counter-fire}
- 99/0063 . . {with simultaneous removal of inflammable materials}
- 99/0072 . . {using sprayed or atomised water}
- 99/0081 . {Training methods or equipment for fire-fighting}
- 99/009 . {Methods or equipment not provided for in groups [A62C 99/0009](#) - [A62C 99/0081](#)}