### 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.

<table>
<thead>
<tr>
<th>2/00</th>
<th>Fire prevention or containment (A62C 3/00 takes precedence; flame traps A62C 4/00)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/04</td>
<td>. Removing or cutting-off the supply of inflammable material</td>
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<tr>
<td>2/06</td>
<td>. Physical fire-barriers</td>
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<tr>
<td>2/065</td>
<td>. (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))</td>
</tr>
<tr>
<td>2/08</td>
<td>. Water curtains (nozzles A62C 31/02)</td>
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<tr>
<td>2/10</td>
<td>. Fire-proof curtains</td>
</tr>
<tr>
<td>2/12</td>
<td>. Hinged dampers</td>
</tr>
<tr>
<td>2/14</td>
<td>. . with two or more blades</td>
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<tr>
<td>2/16</td>
<td>. . . multi-vane roll or fold-up type</td>
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<tr>
<td>2/18</td>
<td>. Sliding dampers</td>
</tr>
<tr>
<td>2/20</td>
<td>. . at 90 degrees to the plane of the opening</td>
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<tr>
<td>2/22</td>
<td>. Fire-dampers with provision for the removal of an obstacle, e.g. rails, conveyors, before closing the opening</td>
</tr>
<tr>
<td>2/24</td>
<td>. Operating or controlling mechanisms (emergency operation of doors and windows E05F 1/002, E05F 15/72)</td>
</tr>
<tr>
<td>2/241</td>
<td>. (having mechanical actuators and heat sensitive parts)</td>
</tr>
<tr>
<td>2/242</td>
<td>. . . (with fusible links)</td>
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<tr>
<td>2/243</td>
<td>. . . (with frangible elements)</td>
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<tr>
<td>2/245</td>
<td>. . . (with thermostatic elements, e.g. bimetallic, resettable actuators)</td>
</tr>
<tr>
<td>2/246</td>
<td>. . (having non-mechanical actuators)</td>
</tr>
<tr>
<td>2/247</td>
<td>. . (electric)</td>
</tr>
<tr>
<td>2/248</td>
<td>. . (pneumatic)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3/00</th>
<th>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)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/002</td>
<td>. (for warehouses, storage areas or other installations for storing goods)</td>
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<tr>
<td>3/004</td>
<td>. (for freezing warehouses and storages)</td>
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<tr>
<td>3/006</td>
<td>. (for kitchens or stoves)</td>
</tr>
</tbody>
</table>

### 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))
- . (for area conflagrations, e.g. forest fires, subterranean fires)
- . (by blowing air or gas currents with or without dispersion of fire extinguishing agents; Apparatus therefor, e.g. fans)
- . (for buildings or installations in fire storms)
- . (for tunnels)
- . (with delivery of fire extinguishing material by air or aircraft (fire-fighting aircraft B64D 1/16))
- . (by means of containers, e.g. buckets)
- . (by spraying extinguishants from the aircraft (spraying from aircraft in general B64D 1/16))
- . (for extinguishing bombs; Projectiles and launchers therefor (launching apparatus for projectiles, missiles or torpedoes in general F41F 1/00, F41F 3/00, F41F 7/00))
- . (Fire curtains, blankets, walls, fences)
- . (by creating water curtains)
- . (Detection of area conflagration fires (fire alarms for forest fires G08B 17005))
- . (by creating zones devoid of flammable material)
- . (with creation of a fire zone by an explosion or a counter-fire)
- . (by spraying extinguishants directly into the fire (A62C 3/0242 takes precedence))
- . (for dust or loosely-baled or loosely-piled materials, e.g. in silos, in chimneys (flame traps A62C 4/00))
- . (of highly inflammable material, e.g. light metals, petroleum products)
- . (for containers filled with inflammable liquids)
- . (in vehicles, e.g. in road vehicles)
- . (in aircraft (A62C 3/0207 takes precedence))
- . (in ships (A62C 3/0207 takes precedence))
- . (in connection with doors, windows, ventilators, partitions, or shutters, e.g. automatic closing)
- . (in electrical installations, e.g. cableways)

### 4/00

Flame traps allowing passage of gas but not of flame or explosion wave
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 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
Permanently-installed equipment

35/023 . . . [the extinguishing material being expelled by compressed gas, taken from storage tanks, or by generating a pressure gas (for foam generation A62C 35/02)]
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]