

A62 LIFE-SAVING; FIRE-FIGHTING (ladders E06C)

A62B DEVICES, APPARATUS, OR METHODS FOR LIFE-SAVING (valves specially adapted for medical use A61M 39/00; life-saving devices, apparatus or methods specially adapted for use in water B63C 9/00; divers' equipment B63C 11/00; specially adapted for use with aircraft, e.g. parachutes, ejector seats, B64D; rescue devices peculiar to mining E21F 11/00)

Subclass Index**RESCUING, e.g. IN CASE OF FIRE**

Means for escape or protection 1/00, 3/00,
5/00

Breathing containers 31/00

Safety means for seemingly-dead
persons 33/00

**INDIVIDUAL BREATHING MASKS OR
APPARATUS**

Types 7/00, 18/00

Details 9/00, 18/00

Cartridges, oxygen generators,

filters 19/00, 21/00,
23/00

Storing, testing 25/00, 27/00

PROTECTIVE CLOTHING, SAFETY BELTS 17/00, 35/00

COLLECTIVE DEVICES FOR BREATHING
PROTECTION OR FOR PROTECTION
AGAINST CHEMICAL AGENTS

Air conditioning or ventilation in

sealed rooms 11/00, 13/00

Other protection 15/00, 29/00

OTHER LIFE SAVING 37/00

Rescuing from fire; Rescuing from buildings or the like (from mountains or trees A63B 27/00, A63B 29/00; from ships B63C)

1/00 Devices for lowering persons from buildings or the like

1/02 . by making use of rescue cages, bags, or the like
(elevators, escalators or moving walkways B66B)

1/04 . . Single parts, e.g. fastening devices

1/06 . by making use of rope-lowering devices (capstans,
winches B66D)

1/08 . . with brake mechanisms for the winches or pulleys

1/10 . . . mechanically operated

1/12 . . . hydraulically operated

1/14 . . with brakes sliding on the rope

1/16 . . Life-saving ropes or belts (safety belts
A62B 35/00; mountain guy-ropes A63B 29/02;
life-saving belts for use at sea B63C)

1/18 . . Other single parts for rope lowering-devices,
e.g. take-up rollers for ropes, devices for shooting
ropes

1/20 . by making use of sliding-ropes, sliding-poles or
chutes, e.g. hoses, pipes, sliding-grooves, sliding
sheets

1/22 . by making use of jumping devices, e.g. jumping-
sheet, jumping-mattresses

**3/00 Devices or single parts for facilitating escape from
buildings or the like, e.g. protection shields,
protection screens; Portable devices for preventing
smoke penetrating into distinct parts of buildings**
(A62B 1/00 takes precedence)

5/00 Other devices for rescuing from fire (ladders E06C)

**Respirators; Gas-masks, including breathing apparatus, e.g. for
high altitude, or masks therefor; Devices affording protection
against harmful chemical agents** (composition of materials for
coverings against harmful chemical agents A62D 5/00, for
transparent parts of breathing apparatus A62D 7/00; composition of
chemical substances for use in breathing apparatus A62D 9/00)

7/00 Respiratory apparatus (for medical purposes
A61M 16/00)

7/02 . with compressed oxygen or air

7/04 . . and lung-controlled oxygen or air valves

7/06 . with liquid oxygen

7/08 . containing chemicals producing oxygen

7/10 . with filter elements

7/12 . with fresh-air hose

7/14 . for high-altitude aircraft

**9/00 Component parts for respiratory or breathing
apparatus** (A62B 19/00, A62B 21/00, A62B 23/00 take
precedence) [4]

9/02 . Valves

9/04 . Couplings; Supporting frames

9/06 . Mouthpieces; Nose-clips (for medical purposes
A61M 15/00)

**11/00 Devices for reconditioning breathing air in sealed
rooms** (chemical purification, disinfection, or
sterilisation of air A61L; in aircraft or submarines,
insofar as they influence the construction of the vehicle
or are influenced by its construction B63B, B64D,
respectively; air-conditioning in general F24F)

13/00 Special devices for ventilating gasproof shelters
(ventilating in general F24F)

**15/00 Installations affording protection against poisonous
or injurious substances, e.g. with separate breathing
apparatus** (building aspects E04H 9/00)

**17/00 Protective clothing affording protection against heat
or harmful chemical agents or for use at high
altitudes** (protective clothing or garments for work or
sport A41D 13/00; protecting eyes or ears A61F 9/00;
composition of materials for protective clothing
A62D 5/00; life-saving garments for use at sea B63C;
diving suits B63C 11/02; flying suits B64D 10/00; space
suits B64G 6/00; bullet-proof clothing F41H 1/02) [2]

17/04 . Hoods

17/08 . Protective coverings for animals

**18/00 Breathing masks or helmets, e.g. affording protection
against chemical agents or for use at high altitudes**
(A62B 17/00 takes precedence; anaesthetic masks
A61M 16/06)

18/02 . Masks (gas-masks for animals A62B 18/06; masks
for welders A61F 9/06)

18/04 . Gas helmets

A62B – A62C

18/06	. Gas masks for animals	29/00	Devices for rendering harmless or for keeping off harmful chemical agents (respiratory apparatus A62B 7/00; gasproof doors, windows, shutters E06B)
18/08	. Component parts for gas-masks or gas-helmets, e.g. windows, straps, speech transmitters, signal-devices (eye-pieces for protective goggles A61F 9/02; composition of materials for the windows or other transparent parts A62D 7/00)	31/00	Containers or portable cabins for affording breathing protection with devices for reconditioning the breathing air or for ventilating (ventilation of gasproof shelters A62B 13/00; protective clothes or coverings A62B 17/00; treatment rooms for medical purposes A61G 10/00) [4]
18/10	. . Valves	33/00	Devices for allowing seemingly-dead persons to escape or draw attention; Breathing apparatus for accidentally buried person
19/00	Cartridges with absorbing substances for respiratory apparatus	35/00	Safety belts or body harnesses; Similar equipment for limiting displacement of the human body, especially in case of sudden changes of motion (buckles A44B 11/00; accessories for children's furniture A47D 15/00; children's seats B60N 2/24; safety belts or body harnesses for land vehicles B60R 22/00; harnesses for parachutes B64D 17/30; harnessing in aircraft B64D 25/06; releasable fastenings F16B) [4]
19/02	. with oxidising agents	35/04	. incorporating energy absorbing means [4]
21/00	Devices for producing oxygen from chemical substances for respiratory apparatus	37/00	Devices, apparatus, or methods for life-saving not covered by the other groups of this subclass
23/00	Filters for breathing-protection purposes (gas-filters in general B01D)		
23/02	. for respirators		
23/04	. for gasproof shelters		
23/06	. Nose filters		
25/00	Devices for storing respiratory or breathing apparatus [4]		
27/00	Methods or devices for testing respiratory or breathing apparatus (apparatus for testing gastightness in general G01M) [4]		

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)

Subclass Index

FIRE PREVENTION OR CONTAINMENT;
FIRE-EXTINGUISHING FOR PARTICULAR
OBJECTS OR PLACES

Prevention or containment	2/00
Flame traps	4/00
For particular objects or places	3/00

MAKING FIRE-EXTINGUISHING
MATERIALS BEFORE USE

HAND TOOLS OR ACCESSORIES

PORTABLE EXTINGUISHERS

According to operating principle	11/00, 13/00, 19/00, 25/00
Knapsack type	15/00

Pistol or rifle type	17/00
FIRE-FIGHTING VEHICLES	
Land vehicles	27/00
Boats	29/00

DELIVERY OF FIRE-EXTINGUISHING MATERIALS	31/00
HOSE ACCESSORIES	33/00
STATIONARILY-INSTALLED EQUIPMENT	35/00
CONTROL OF FIRE-FIGHTING EQUIPMENT	37/00
OTHER METHODS, EQUIPMENT OR ACCESSORIES	39/00

2/00	Fire prevention or containment (A62C 3/00 takes precedence; flame traps A62C 4/00) [5]	2/22	. . Fire-dampers with provision for the removal of an obstacle, e.g. rails, conveyers, before closing the opening [5]
2/04	. Removing or cutting-off the supply of inflammable material [5]	2/24	. . Operating or controlling mechanisms [5]
2/06	. Physical fire-barriers [5]	3/00	Fire prevention, containment or extinguishing specially adapted for particular objects or places (for nuclear reactors G21C 9/04) [5]
2/08	. . Water curtains (nozzles A62C 31/02) [5]	3/02	. for area conflagrations, e.g. forest fires, subterranean fires [5]
2/10	. . Fire-proof curtains [5]	3/04	. for dust or loosely-baled or loosely-piled materials, e.g. in silos, in chimneys (flame traps A62C 4/00) [5]
2/12	. . Hinged dampers [5]	3/06	. of highly inflammable material, e.g. light metals, petroleum products [5]
2/14	. . . with two or more blades [5]	3/07	. in vehicles, e.g. in road vehicles [5]
2/16	. . . multi-vane roll or fold-up type [5]	3/08	. . in aircraft [5]
2/18	. . Sliding dampers [5]		
2/20	. . . at 90 degrees to the plane of the opening [5]		

- 3/10 . . . in ships [5]
- 3/16 . . . in electrical installations, e.g. cableways [5]
- 4/00 Flame traps allowing passage of gas but not of flame or explosion wave [2]**
 - 4/02 . . . in gas-pipes (safety valves F16K 17/00) [2]
 - 4/04 . . . in flues or chimneys [2]
- 5/00 Making of fire-extinguishing materials immediately before use (nozzles A62C 31/02) [5]**
 - 5/02 . . . of foam [5]
 - 5/027 . . . Heavy foam [5]
 - 5/033 . . . of gel [5]

Hand fire-extinguishers [5]

- 8/00 Hand tools or accessories specially adapted for fire-fighting, e.g. tool boxes [5]**
 - 8/02 . . . Buckets or pails [5]
 - 8/04 . . . Rakes or beaters [5]
 - 8/06 . . . Fire-blankets [5]
 - 8/08 . . . Shields [5]
- 11/00 Portable extinguishers with manually-operated pumps [5]**
- 13/00 Portable extinguishers which are permanently pressurised or pressurised immediately before use (A62C 11/00 takes precedence) [5]**
 - 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 [5]
 - 13/64 . . . the extinguishing material being released by means of a valve [5]
 - 13/66 . . . with extinguishing material and pressure gas being stored in separate containers [5]
 - 13/68 . . . characterised by means for releasing the extinguishing material [5]
 - 13/70 . . . characterised by means for releasing the pressure gas [5]
 - 13/72 . . . characterised by releasing means operating essentially simultaneously on both containers [5]
 - 13/74 . . . the pressure gas container being pierced or broken [5]
 - 13/76 . . . Details or accessories [5]
 - 13/78 . . . Suspending or supporting devices [5]
- 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 [5]**

Fire-fighting vehicles (A62C 31/00, A62C 33/00, A62C 37/00 take precedence; vehicle aspects, see the appropriate subclasses of B60 to B64, e.g. fire-fighting aircraft B64D 1/16) [5]

- 27/00 Fire-fighting land vehicles**
- 29/00 Fire-fighting vessels or like floating structures [5]**
- 31/00 Delivery of fire-extinguishing material (pumps F04; hoses F16L)**
 - 31/02 . . . Nozzles specially adapted for fire-extinguishing [5]
 - 31/03 . . . adjustable, e.g. from spray to jet or vice-versa [5]
 - 31/05 . . . with two or more outlets [5]
 - 31/07 . . . for different media [5]
 - 31/12 . . . for delivering foam or atomized 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 [5]**
 - 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 (A62C 31/00, A62C 33/00, A62C 37/00 take precedence) [5]

- 35/00 Permanently-installed equipment (for forming water curtains A62C 2/08)**
 - 35/02 . . . with containers for delivering the extinguishing substance (for forming water curtains A62C 2/08)
 - 35/04 . . . Swingable or tiltable containers
 - 35/06 . . . Containers destroyed or opened by falling [5]
 - 35/08 . . . Containers destroyed or opened by bursting charge [5]
 - 35/10 . . . Containers destroyed or opened by flames or heat [5]
 - 35/11 . . . controlled by a signal from the danger zone [5]
 - 35/13 . . . with a finite supply of extinguishing material [5]
 - 35/15 . . . with a system for topping-up the supply of extinguishing material automatically [5]
 - 35/20 . . . Hydrants, e.g. wall-hoses, wall units, plug-in cabinets (hydrants in streets E03B 9/02) [5]
 - 35/58 . . . Pipe-line systems [5]
 - 35/60 . . . wet, i.e. containing extinguishing material even when not in use [5]
 - 35/62 . . . dry, i.e. empty of extinguishing material when not in use [5]
 - 35/64 . . . pressurised [5]
 - 35/66 . . . Accelerators [5]
 - 35/68 . . . Details, e.g. of pipes or valve systems (valves in general F16K) [5]
- 37/00 Control of fire-fighting equipment (heat-sensitive devices G01K) [5]**
 - 37/08 . . . comprising an outlet device containing a sensor, or itself being the sensor, i.e. self-contained sprinklers [5]
 - 37/09 . . . telescopic or adjustable [5]

37/10	. . . Releasing means, e.g. electrically released [5]	37/40	. . . with electric connection between sensor and actuator [5]
37/11	. . . heat-sensitive [5]	37/42	. . . with mechanical connection between sensor and actuator, e.g. rods, levers [5]
37/12	. . . with fusible links [5]	37/44	. . . only the sensor being in the danger zone [5]
37/14	. . . with frangible vessels [5]	37/46	. . . Construction of the actuator [5]
37/16	. . . with thermally-expansible links [5]	37/48	. . . Thermally sensitive initiators [5]
37/20	. . . Resetting after use; Tools therefor [5]	37/50	. . . Testing or indicating devices for determining the state of readiness of the equipment [5]
37/21	. . . automatic [5]		
37/36	. . . an actuating signal being generated by a sensor separate from an outlet device [5]	39/00	Fire-fighting methods, equipment or accessories, not provided for in groups A62C 2/00 to A62C 37/00
37/38	. . . by both sensor and actuator, e.g. valve, being in the danger zone [5]		

A62D CHEMICAL MEANS FOR EXTINGUISHING FIRES; PROCESSES FOR MAKING HARMFUL CHEMICAL SUBSTANCES HARMLESS, OR LESS HARMFUL, BY EFFECTING A CHEMICAL CHANGE; COMPOSITION OF MATERIALS FOR COVERINGS OR CLOTHING FOR PROTECTING AGAINST HARMFUL CHEMICAL AGENTS; COMPOSITION OF MATERIALS FOR TRANSPARENT PARTS OF GAS-MASKS, RESPIRATORS, BREATHING BAGS OR HELMETS; COMPOSITION OF CHEMICAL MATERIALS FOR USE IN BREATHING APPARATUS

Note

Processes using enzymes or micro-organisms in order to:

- (i) liberate, separate or purify a pre-existing compound or composition, or to
 - (ii) treat textiles or clean solid surfaces of materials
- are further classified in subclass C12S. [5]

1/00	Fire-extinguishing compositions; Use of chemical substances in extinguishing fires (fireproof paints C09D 5/18; fireproofing materials C09K 21/00)	5/00	Composition of materials for coverings or clothing affording protection against harmful chemical agents
1/02	. . . containing or yielding a gas phase, e.g. foams (A62D 1/06, A62D 1/08 take precedence) [3]	7/00	Composition of materials for transparent parts of gas-masks, respirators, breathing bags, or helmets
1/04	. . . characterised by the foam stabiliser [3]	7/02	. . . Clear-view sheets which prevent the formation of water drops or ice (materials for minimising adherence of ice or water to surfaces C09K 3/18)
1/06	. . . containing gas-producing, chemically-reactive components [3]		
1/08	. . . containing volatile or gas-charged liquids [3]	9/00	Composition of chemical substances for use in breathing apparatus (production of oxygen-generating compounds in general, processes for the production of oxygen from chemicals in general C01B 13/00, C25B 1/02)
3/00	Processes for making harmful chemical substances harmless, or less harmful, by effecting a chemical change in the substances (consuming noxious gases by combustion F23G 7/06)		